# **RISK ASSESSMENT**



# Risk Assessment of PGCB

**Following OHSAS 18001:2007** 

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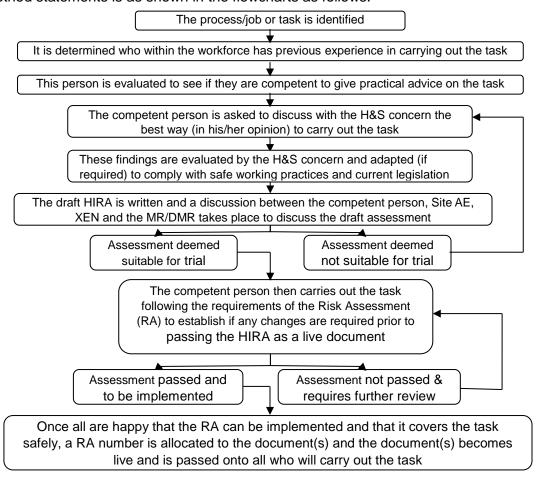
#### **Risk Assessment & Control:**

PGCB takes assessment of risk and hazards that may be evident during its undertakings as a priority.

To accommodate and facilitate risks and hazards that may be evident either on site or at the head office facility, risk assessments and work method statements are carried out on work activities. These risk assessments and work method statements form a part of the system that as a whole encompasses all health & safety control measures.

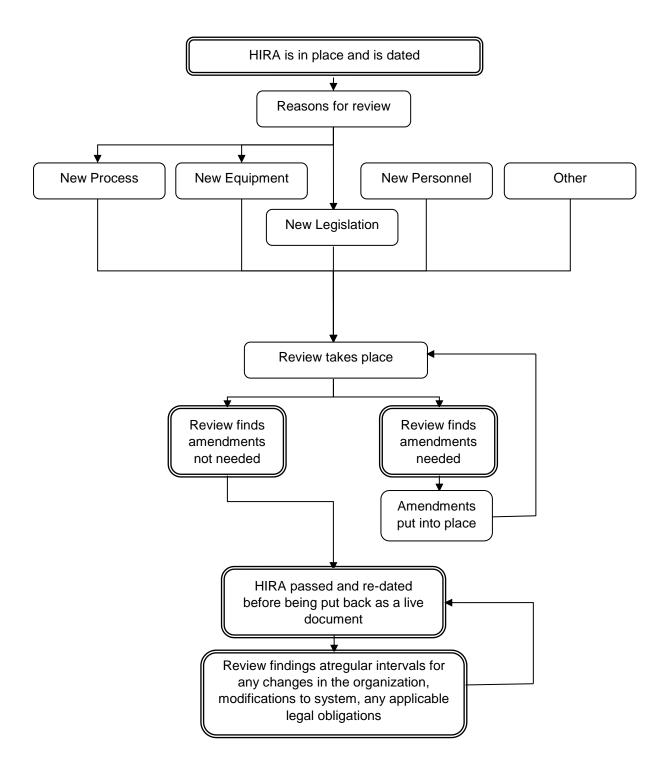
These risk assessments, work method statements and other documents are formulated in a methodical way by the Health & Safety concerned to ensure that a safe working environment is in place at all times.

The assessment and control of risk is a major factor in ensuring that a safe working environment is achieved. The procedure HSP-OHS-1 is followed for the formulation of risk assessments and work method statements is as shown in the flowcharts as follows.



Once the process shown has been carried out and the risk assessment becomes a live document, the following process is carried out to ensure that the risk assessment is current and up to date.

The flow charts within this process details the process that PGCB carry out when assessing the requirements for Hazard Identification and Risk Assessments. This procedure takes into consideration all tasks, jobs and processes carried out by PGCB employees.



#### Risk assessment procedure:

Risk assessment has been carried out according to the Procedure for Hazard Identification And Risk Assessment: HSP-OHS-1. This procedure can be summarized as below:

#### 1. Review of Facility Hazards and Risks:

- Develop a complete list of all Physical Item or Activity in the facilities in the Department/ Section.
- Make a "rough draft" estimate of hazards and risks for each job. Look for hazards that are obvious and risks that are clearly serious.
- Develop priorities based on previous experience, information on known work hazards in each area, and the number of employees who are exposed to the hazard. Draw on the personal experience of your risk assessment team. Key operational personnel may be aware of hazards that are not apparent from injury records. Their insights will help you set priorities, as well as identify additional hazards. Newly created jobs that have no history should be examined carefully to establish a preliminary priority.
- PGCB requires that Departments and Sections use the data entry form in Facility Risk Assessments (FRA) Form to record the information gathered from the Facility Risk Assessment process.
- The following ten steps are followed to perform FRA and complete the records:
  - > break down the Physical Item or Activity into successive steps or tasks
  - identify the hazards associated with each step and task
  - identify controls in place for each hazard
  - identify occupancy or use for the activity
  - > identify the Frequency that each step and task is performed
  - > estimate the potential Severity of an accident associated with each hazard
  - estimate the Likelihood of an accident occurring for each hazard (given existing controls)
  - calculate the Risk
  - identify possible additional controls needed for these hazards
  - > re-calculate the Risk and the % Risk reduction if controls are added
- FRA model is then prepared after following the Facility Risk Assessments Form.
- Classify the Risk of each activity step using the information in the bottom portion of Facility Risk Assessments Form.
- Any step with risk identified as "intolerable" must be investigated and abated immediately. Unless specific exception is granted by the Department Head/MR in writing, the activity step will be suspended until the risk can be re-classified as no greater than "substantial."
- Risks identified as "substantial" will require the development and implementation of a written remedial action program prior to proceeding with the work.
- Risks identified as "moderate" or below shall be addressed through the Department's/Section's normal OHS Management System objective-setting and planning processes.

#### 2. Review of Job Hazards and Risks:

- Develop a complete listing of all jobs underway in the Division/ Department. The job list shown in Table 1 in page 7 of 8 of this document shall be used.
- Make a "rough draft" estimate of hazards and risks for each job. Refer column 4 of Table 1 Strategy to Determine the Priority of Job Risk Assessments. Look for hazards that are obvious and risks that are clearly serious.
- Develop priorities based on previous experience, information on known work hazards in each area, and the number of employees who are exposed to the hazard. Draw on the personal experience of your risk assessment team. Key operational personnel may be aware of hazards that are not apparent from injury records. Their insights will help you set priorities, as well as identify additional hazards. Newly created jobs that have no history should be examined carefully to establish a preliminary priority.
- Appropriate number of jobs is decided to be assessed. All High priority jobs should be assessed as soon as practicable. This process is to be done in phases, over time. Thus, it is important to concentrate the initial efforts on those jobs that clearly present more significant risks and fill in other jobs over time.

#### 3. Performing the Job Risk Assessment (JRA)

- PGCB requires that Departments and Sections use the data entry form in Job Risk Assessments Form to record the information gathered from the JRA process.
- The following ten steps are followed to perform JRA.
  - break down the job into successive steps or tasks
  - identify the hazards associated with each step and task
  - identify controls in place for each hazard
  - identify the number of people involved in each step and task
  - identify the Frequency that each step and task is performed
  - > estimate the potential Severity of an accident associated with each hazard
  - estimate the Likelihood of an accident occurring for each hazard (given existing controls)
  - calculate the Risk
  - > identify possible additional controls needed for these hazards
  - re-calculate the Risk and the % Risk reduction if controls are added
- JRA model is then prepared after following the Job Risk Assessments Form.
- Classify the Risk of each job step using the information in the bottom portion of Job Risk Assessments Form.
- Any job step with risk identified as "intolerable" must be investigated and abated immediately. Unless specific exception is granted by the Department/ Division Head in writing, the job step will be suspended until the risk can be re-classified as no greater than "substantial."
- Risks identified as "substantial" will require the development and implementation of a written remedial action program prior to proceeding with the work.
- Risks identified as "moderate" or below shall be addressed through the Department's/Section's normal OHS Management System objective-setting and planning processes.

#### 4. Job Stressors

 Note any job stressors on the JRA form. Job stressors must be factored into the risk assessment if they are present. See the list of common job stressors in Table 2 in page 8 of 8 of the document SP-OHS-1. Job stressors will increase the likelihood of an injury

#### 5. JRA Results:

- As indicated in OHSAS 18001, JRA process is used to help determine:
  - job requirements
  - training needs
  - · development of controls
- The JRA process must include some means of monitoring improvement actions added to reduce risk in order to ensure that actions are implemented on time and are effective. The use of inspections is established for this purpose.
- Additionally, the Department/Division must consider the results of the JRA process and effects of controls when establishing annual OHS objectives. Jobs steps and tasks where injuries and incidents have occurred during the year, as well as risk levels in the Substantial category, should be considered when setting annual OHS objectives.

#### 6. Annual JRA Review:

- On an on-going basis, the Management Representative is responsible for scheduling reviews of 1/3 the number of organizational JRAs annually so that all the JRAs are reviewed at a minimum of once every three years. The purpose of such reviews is to ensure the JRAs reflect the current jobs at the site.
- The Management Representative in consultation with Joint Environment, Occupational Health & Safety Sub-Committee will conduct review of job hazards and risks annually.
- The review of a particular job shall be made on the level of risk assigned to hazards in prior JRAs and submit the report to MR in due time.

# 7. JRA in Response to Accidents, Incidents, Non-Conformances, Corrective and Preventative Actions:

 As necessary, the Management Representative shall schedule and assign appropriate personnel to conduct or update a JRA in conjunction with a Critical, Occurrence, near miss or non-conformance associated with a job.

#### 8. Job Step or Task Change:

- Management Representative shall schedule and assign appropriate personnel to review all changes and modification to a job step or task where hazards have been introduced or remedied and conduct a new or modified JRA for job steps and activities under the Department's/Section's purview.
- The use of common hazard terminology is encouraged and it simplifies the risk assessment process. The following are common terms or phrases for hazards that are used by PGCB's. They are the leading causes of workplace injuries and are listed in order of cost of wage replacement and medical payments.

- ➤ Overexertion injuries caused by excessive lifting, pushing, pulling, holding, or carrying of an object
- > Falls on same level
- > Electrocution and electrical shock
- ➤ Hazards related to jobs or tasks
- > Fires
- > Hazardous or toxic material exposures
- ➤ Bodily reaction injuries resulting from bending, climbing, loss of balance and slipping without falling
- Falls to lower level, such as falling from a ladder or over a railing
- > Being struck by an object, such as a tool falling on a worker from above
- > Repetitive motion
- Roadway accidents
- ➤ Being struck against an object such as a carpenter walking into a doorframe, or cuts and skin abrasions from working in tight spaces
- > Becoming caught in or compressed by equipment
- ➤ Contact with temperature extremes that result in such injuries as heat exhaustion, frost bite or burns
- 9. Before starting any job, tool box talk shall be done to ensure safe operation & maintenance as well as to ensure using required PPE and maintain safety instructions.



#### **FACILITY RISK ASSESSMENT FOR BATTERY ROOM**

									Point	Value	∋ →							2			4	F
									Paran	neter	1		1		·	2		3			4	5
Area/Facility Title	e: Battery Ro	om							Oc	cupa Or Us	ncy		≤once/	year	≤once	/month	≤ond	e/we	eek	≤on	ce/day	≤once/shift
									S	everi	ty		First /	у		dical tment	Los	t Tin	ne		artial ability	Death or Permanent Disability
									Lik	eliho	od		Ver Unlik		Unli	kely		ssibl			bable	Multiple
				Bef	ore C	ontro	ols			Α	fter I	nitia	Contro	ols			Afte	r Ad	ditior	nal Co	ntrols	
Item or activity	Hazard	(s)	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	Initial Cont	rols	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk = (AxBxC)+E	Add	rol(s) ed to ee Risk	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	% Risk Reduction
Inspection and	Low spa	ace	2	2	2	0	8	Proper plan reorgania	•													
maintenance at battery room	Electrical	shock	2	1	5	0	10	Hand gloves safety shoes helmet. insutools.	3,													
	Battery orie	ntation	2	1	5	0	10	Proper plan reorgania														
	Electrol	•	2	2	5	0	20	Hand glov safety sho apron, goo helmet, insu tools.	es, jgle,													
	Suffoca	tion	5	1	3	0	15	Ventilation	fan													
	Low illumi		5	1	3	0	15	Install lig	ht													
Further Descript	ion of Controls	Added to	o Re	duce	Risk	:																
*Risk	<		) to2					21 to40					1 to60				61 to80					or greater
		Ne	gligi	ble			P	cceptable				Mo	derate	:		Su	bstant	ial			In	tolerable



#### JOB RISK ASSESSMENT FOR BATTERY ROOM

				Poin Para		lue - er ↓	<b>→</b>		1	2			3			4	1	5
Job Title: Battery Roo Inspection a	m Ind maintenance at ba	ttery room		F	requ (E	iency 3)	/	≤0	once/year	r ≤once/montl	ſ	≤oı	nce/\	week		≤once	e/day	≤once/shift
,,,,,,,					Seve (C	erity ()			First Aid Only	Medical Treatment		Lo	ost T	ime		Par Disa		Death or Permanent Disability
					(E				xtremely Unlikely	Unlikely		P	ossi	ble		Prob	able	Multiple
				Befo	re A	dditio	onal (	Cont	rols			Afte	er Ac	ditio	nal (	Contro	ls	
Job Step/Task	Hazard	Control(s)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	% Risk Reduction
Specific gravity	Spillage	Apron, hand gloves	N	2	2	2	3	0	24									
measurement/ Top	Electrical shock	goggles, safety shoes,	N	2	2	2	2	0	16									
up.	Short circuit	insulated tools.	N	2	2	2	2	0	16									
Cleaning/ Tightening/	Slipping of wrench		N	2	2	2	2	0	16									
Greasing	Short circuit		Ν	2	2	2	2	0	16									
Cell voltage	Electrical shock		Ν	2	2	2	2	0	16									
measurement	Short circuit		N	2	2	2	2	0	16									
Inspection	Suffocation		Ν	2	5	1	2	0	10									
Use of electrical appliances	Electrocution or injury	All damaged electrical appliances shall be removed from service, use proper PPE	N	2	4	2	3	0	48									



#### JOB RISK ASSESSMENT FOR BATTERY ROOM

(contd.)

Use of Metallic Tapes and Other Conductive Equipment Further Description of	Electrocution injury  Controls Add		conductive equipmed shall avoid where applicable, use of proper PPE		N	2	3	3	3	0	54										
*Risk		(	) to20	21	to40	)				41 tc	o60		6	61 to	80	 		81 or	great	er	
		Ne	gligible	Acce	eptal	ole			N	/lode	rate		Su	bsta	ntial			Intol	erable	е	

Each hazard should occupy one line in the risk table. That is, the risk from each hazard is to be assessed individually. A single activity must be entered three times in the table since there are three hazards associated with this activity.



# FACILITY RISK ASSESSMENT FOR SWITCH YARD (BUS)

Area/Facility Tit	e: <b>Switch va</b> r	d (Bus)							Point Paran				1		2		3			4	5
r ii ourr doinig r ii	,	( <i>–</i> )								cupa Or Us			≤once	/year	≤once/month	≤ond	ce/we	eek	≤on	ce/day	≤once/shift
									S	everi	ty		First On		Medical Treatment	Los	st Tin	ne		artial ability	Death or Permanent Disability
									Lik	eliho	od		Vei Unlik		Unlikely	Po	ssibl	le	Pro	bable	Multiple
				Bef	ore C	ontro	ols			Α	fter I	nitia	l Conti	rols		Afte	r Ad	ditior	nal Co	ntrols	
Item or activity	Hazard	(8)	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	Initial Cont		Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk = (AxBxC) + E	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	% Risk Reduction
Schedule & Emergency Maintenance	HV sho		3	5	4	0	60	Proper isolat grounding, I gloves, safety safety belt. He Ladder. Safe d from live pa	nand shoes, elmet. listance arts.												
	Fall down height	from	2	5	4	0	40	Hand gloves, shoes, safety Helmet. Lad	/ belt.												
Overhead Lines	near approa	ltage	5	4	4	0	80	Use proper I maintain s distance	afe												
Further Descrip	tion of Controls	s Added to	Re	duce	Risk	:															
*Ris	k	(	) to2	20				21 to40				4	1 to60			61 to80	)			81	or greater
			gligi				A	Acceptable					oderate			bstant					tolerable



#### JOB RISK ASSESSMENT FOR SWITCH YARD (BUS)

L. L. Titl. Control on and	(D)							t Val		<b>→</b>		1	2			3			4	1	5
Job Title: Switch yard								mete requ		,											. / / ! '6
Schedule &	Emergenc	y Maint	enar	ice				(B			≤o	nce/year	≤once/mont	n	≤oı	nce/v	veek		≤once	e/day	≤once/shift
								Seve (C			F	First Aid Only	Medical Treatment		Lo	ost T	ime		Par Disa		Death or Permanent Disability
								ikelil. (D	)		ι	xtremely Jnlikely	Unlikely			ossi			Prob		Multiple
	T			Г			Befo	re A	dditic	nal (	Cont	rols			Afte	er Ac	lditio	nal (	Contro	ols	
Job Step/Task	На	azard		Control(s	)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	% Risk Reduction
Cleaning/	Stressors	3		Proper isolation		Υ	2	2	3	3	0	36									
Tightening/Nut Bolt changing,	Fall do	wn Fr	om	grounding, hand gloves, safety s	hoes,	Υ	2	1	5	4	0	40									
Changing Disc	Stressors	3		safety belt, heln		Υ	2	2	2	3	0	24									
insulator.	Fall do height	wn Fr	om	Proper use of la	idder,	N	2	2	3	4	0	48									
Use of electrical appliances	Electrocu injury	ition	or	All damaged ele appliances shal removed from s use proper PPE	l be ervice,	N	2	4	2	3	0	48									
Use of Metallic Tapes and Other Conductive Equipment	Electrocu injury	ition	or	Metallic tapes 8 conductive equi shall avoid whe applicable, use proper PPE	pment re	N	2	3	3	3	0	54									
Further Description of	Controls A	dded to	Redu									<u> </u>		•						•	
*Risk				) to20	21	to40	)				41 to	060		61 to	80_					81 or g	reater
Early Land and Allahar III.				gligible	Acce		ole				1ode		Su	ubsta						Intole	rable

Each hazard should occupy one line in the risk table. That is, the risk from each hazard is to be assessed individually. A single activity must be entered three times in the table since there are three hazards associated with this activity.



# FACILITY RISK ASSESSMENT FOR SWITCH YARD (CIRCUIT BREAKER)

									Point	Valu	e →		1		2		3			4	5
									Paran	neter	·		'		2		3			4	5
Area/Facility Titl	e: Switch yard	(Circuit	Bre	eake	r)					cupa Or Us			≤once/	/year	≤once/month	≤ond	ce/w	eek	≤on	ce/day	≤once/shift
									S	ever	ity		First On	ly	Medical Treatment	Los	st Tin	ne		artial ability	Death or Permanent Disability
									Lik	eliho	ood		Ver Unlik		Unlikely		ssib			bable	Multiple
				Bef	ore C	ontro	ols			P	fter	Initia	l Contr	ols		Afte	r Ad	ditior	nal Co	ntrols	
Item or activity	Hazard (s	8)	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	Initial Cont	rols	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk = (AxBxC)+E	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	% Risk Reduction
Schedule & Emergency maintenance,	Height		3	5	3	0	45	Hang glov safety belt, s shoes, helr ladder.	safety met,												
	High Voltage s	hock	3	5	4	0	60	Proper ground hang gloves, belt, safety sh helmet, ladde	safety noes,												
	Porcelain Blas	st	1	5	5	0	25	Safety sho helmet													
	Bird or squirrel snake	or	4	3	4	0	48	Inspection, I air gun, reg cleaning of gi and bush	gular rasses												
Overhead Lines	Contact with near approact live high voltage	ch to a age	5	4	4	0	80	Use proper F maintain sa distance	PPE, afe												
Further Descript	tion of Controls A	Added to	Re	duce	Risk	:															
*Ris	k	0	to2	0				21 to40				4	1 to60		(	61 to80	)			81	or greater
		Ne	gligi	ble			-	Acceptable				М	oderate	9	Su	ıbstant	ial				tolerable



# JOB RISK ASSESSMENT FOR SWITCH YARD (CIRCUIT BREAKER)

				Poin Para			<b>→</b>		1	2			3			4		5
Job Title: Switch yard	d (Circuit Breaker) oor Schedule mainten	ance		F	requ (E	iency 3)	/	≤0	once/year	≤once/month	1	≤or	nce/v	veek		≤once	e/day	≤once/shift
					Seve (C	•		F	First Aid Only	Medical Treatment		Lo	st T	ime		Par Disal		Death or Permanent Disability
					(D			l	xtremely Unlikely	Unlikely			ossi			Prob		Multiple
	T	1		Befo	re A	dditio	onal (	Cont	rols			Afte	er Ac	lditio	nal (	Contro	ls	
Job Step/Task	Hazard	Control(s)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	% Risk Reduction
Cleaning/ Nut bolt	Stress	Hang gloves, safety belt,	Υ	4	2	3	3	0	72									
tightening/ CB changing / Pole	Fall down from height.	safety shoes, helmet, ladder, proper tools &	Υ	2	2	4	4	0	64									
changing,	Pole or C.B charge	tackle chain ton.	Υ	5	1	5	2	0	50									
During grounding led connection.	Voltage induction	Hand gloves safety belt, safety shoes, helmet, hot stick.	Υ	1	2	3	3	0	18									
Measuring Insulation & conductance.	LV shock	Hand gloves safety belt, safety shoes, helmet, grounding,	Υ	2	1	4	4	0	32									
Use of electrical appliances	Electrocution or injury	All damaged electrical appliances shall be removed from service, use proper PPE	N	2	4	2	3	0	48									



#### JOB RISK ASSESSMENT FOR SWITCH YARD (CIRCUIT BREAKER)

(Contd.)

Use of Metallic Tapes and Other Conductive Equipment	Electrocution injury	or	Metallic tapes & conductive equipment shall avoid where applicable, use of proper PPE	N	2	3	3	3	0	54							
Further Description of	Controls Added		uce Risk:	1 to4	0				41 to	n60	61 to	080			81 or	greater	
Tuok				epta					/lode			antial				erable	

Each hazard should occupy one line in the risk table. That is, the risk from each hazard is to be assessed individually. A single activity must be entered three times in the table since there are three hazards associated with this activity.



# FACILITY RISK ASSESSMENT FOR SWITCH YARD (CURRENT TRANSFORMER)

								Point '	Value	9 →						_			_	_
								Param	neter	$\downarrow$		1		2		3			4	5
Area/Facility Tit	e: Switch yard (Currer	nt Tr	ansf	orme	r)				cupai or Us			≤once/	year	≤once/month	≤ond	e/we	ek	≤on	ce/day	≤once/shift
								S	everi	ty		First A	у	Medical Treatment	Los	t Tim	ne		artial ability	Death or Permanent Disability
								Lik	eliho			Ver Unlik	ely	Unlikely		ssibl			bable	Multiple
			Bef	ore C	ontro	ols			Α	fter I	nitia	I Contr	ols		Afte	r Ado	ditior	nal Co	ntrols	
Item or activity	Hazard (s)	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	Initial Cont	rols	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk = (AxBxC)+E	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	% Risk Reduction
Schedule & Emergency maintenance.	Fall from height	3	5	3	0	45	Hang glov safety belt, s shoes, helr proper use ladder.	safety met, e of												
	High Voltage shock	3	5	4	0	60	Proper Groun hang gloves, Safety belt, so shoes, helme proper use of ladder	afety t,												
Schedule & Emergency maintenance	Porcelain Blast	1	5	5	0	25	safety sho helmet. Maint safe distar	taining												
	Bird or squirrel or snake	4	2	4	0	32	Inspection, l air Gun, reg cleaning of gi and bush	gular rasses												



# FACILITY RISK ASSESSMENT FOR SWITCH YARD (CURRENT TRANSFORMER)

#### (Contd.)

Overhead Lines	Contact with near approach to live high voltage		4	4	0	80	Use proper PPE, maintain safe distance											
Further Descrip	tion of Controls Add	led to R	educ	e Risk	:													
*Ris	k	0 to:	20				21 to40		4	1 to60		6	1 to80	)		81	or greater	
		Neglig	jible			-	Acceptable		Мо	derate	)	Su	bstant	ial		In	tolerable	



# JOB RISK ASSESSMENT FOR SWITCH YARD (CURRENT TRANSFORMER)

				Poin Para		lue – er <u>l</u>	<b>→</b>		1	2			3			4		5
	(Current Transformer			F	requ (E	iency 3)	/	≤0	once/year	r ≤once/month	1	≤oı	nce/\	week		≤once	e/day	≤once/shift
Emergency	and Schedule mainte	nance			Seve (C	erity C)		ı	First Aid Only	Medical Treatment		Lo	ost T	ïme		Par Disal		Death or Permanent Disability
					([				xtremely Unlikely	Unlikely			ossi			Prob		Multiple
	<u> </u>	T		Beto	re A	aaitic	onal (	ontی	rois			Afte	er Ac	daitio	nai (	Contro	IS	
Job Step/Task	Hazard	Control(s)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	% Risk Reduction
Cleaning/ Nut bolt	Stress	Hang gloves, safety belt,	Υ	4	2	3	3	0	72									
tightening/C.T changing	Fall down from height.	safety shoes, helmet, ladder, proper tools &	Υ	2	1	4	4	0	32									
	C.T change	tackle chain ton.	Υ	5	1	5	2	0	50									
During grounding led connection.	Voltage induction	Hand gloves safety belt, safety shoes, helmet, Hot stick.	Υ	1	2	2	3	0	12									
Measuring Insulation & conductance.	LV shock	Hand gloves safety belt, safety shoes, helmet, grounding,	Υ	2	1	4	3	0	24									
Use of electrical appliances	Electrocution or injury	All damaged electrical appliances shall be removed from service, use proper PPE	Ν	2	4	2	3	0	48									



#### JOB RISK ASSESSMENT FOR SWITCH YARD (CURRENT TRANSFORMER)

(Contd.)

Use of Metallic Tapes and Other Conductive Equipment	Electrocution injury	n or	Metallic tapes & conductive equipment shall avoid where applicable, use of proper PPE	N	2	3	3	3	0	54							
Further Description of	Controls Adde	d to Redu	, , ,	1									I	I			
*Risk				1 to4 cepta					41 to /lode		61 to	80 antial				81 or g	

Each hazard should occupy one line in the risk table. That is, the risk from each hazard is to be assessed individually. A single activity must be entered three times in the table since there are three hazards associated with this activity.



#### FACILITY RISK ASSESSMENT FOR CAPACITOR BANK

									Point '		_		1		2		3			4	5
Area/Facility Tit	le: Capacitor E	Bank								cupa or Us			≤once/	'year	≤once/month	≤ond	ce/we	eek	≤on	ce/day	≤once/shift
									S	everi	ty		First On	y	Medical Treatment	Los	st Tin	ne		artial ability	Death or Permanent Disability
									Lik	eliho	od		Ver Unlik	y ely	Unlikely		ssibl			bable	Multiple
				Bef	ore C	ontro	ols			Α	fter I	nitia	I Contr	ols		Afte	er Ad	ditior	nal Co	ntrols	
Item or activity	Hazard	(s)	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	Initial Cont	rols	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk = (AxBxC)+E	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	% Risk Reduction
Emergency & schedule maintenance	Low Space		1	5	3	0	15	Proper use of regular clea													
	High Voltage	shock	1	5	4	0	20														
	Capacitor Bla	ast	1	5	5	0	25														
	Bird or squirre	el	3	2	3	0	18														
Overhead Lines	Contact w near approa live high vol	ach to a tage	5	4	4	0	80	Use proper F maintain sa distance	afe												
Further Descrip	Further Description of Controls Added to Reduce Risk:																				
							21 to40				4	1 to60		6	61 to80	)			81	or greater	
								Acceptable				Mo	oderate	)	Su	ıbstant	ial			In	tolerable



#### JOB RISK ASSESSMENT FOR CAPACITOR BANK

				Poin			<b>→</b>		1	2			3			4		5
Job Title: Capacitor B	ank and Schedule mainte	nance		Para F		iency	/	≤0	once/year	r ≤once/mont	h	≤or	nce/v	week	(	≤once	e/day	≤once/shift
e.geney				,	Sev	erity		F	First Aid Only	Medical Treatment		Lo	ost T	ime		Par Disa		Death or Permanent Disability
					([			l	xtremely Unlikely	Unlikely			ossi			Prob		Multiple
		T		Beto	re A	aaitid	onal (	Jont	rois			Afte	er Ac	iditio	nai (	Contro	IS	<u> </u>
Job Step/Task	Hazard	Control(s)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	% Risk Reduction
Cleaning/ Nut bolt tightening/ LA	NCT charge from semi dead part	Hang gloves, safety belt, safety shoes, helmet, 15	Υ	3	1	4	3	0	36									
changing/ Cap. cell change, capacitance/	HV shock from adjacent live part	min delay after shutdown. Proper grounding.	Υ	2	1	4	4	0	32									
inductance test	Capacitor charge from semi dead part		Υ	2	1	5	3	0	30									
During grounding led connection.	Voltage induction	Hand gloves safety belt, safety shoes, helmet	Υ	1	1	4	3	0	12									
Measuring capacitance	HV shock or Voltage induction	Hand gloves safety belt, safety shoes, helmet	Υ	2	1	4	3	0	24									
Use of electrical appliances	Electrocution or injury	All damaged electrical appliances shall be removed from service, use proper PPE	Ν	2	4	2	3	0	48									



#### JOB RISK ASSESSMENT FOR CAPACITOR BANK

(Contd.)

Use of Metallic Tapes and Other Conductive Equipment Further Description of	Electrocution injury  Controls Add		conductive equipm shall avoid where applicable, use of proper PPE		Ν	2	3	3	3	0	54									
*Risk			) to20	21	to40	)				41 tc	o60		6	1 to	30			81 or	greater	
		Ne	gligible	Acce	eptal	ole			Λ	1ode	rate		Sul	bsta	ntial			Intole	erable	

Each hazard should occupy one line in the risk table. That is, the risk from each hazard is to be assessed individually. A single activity must be entered three times in the table since there are three hazards associated with this activity.



## FACILITY RISK ASSESSMENT FOR CONTROL ROOM

									Point Paran				1		2		3			4	5
Area/Facility Titl	e: Control Ro	om								cupai or Us		:	≤once/	year	≤once/month	≤ond	e/we	eek	≤on	ce/day	≤once/shift
									S	everi	ty		First /	у	Medical Treatment	Los	t Tim	ne		artial ability	Death or Permanent Disability
									Lik	eliho	od		Ver Unlik		Unlikely	Ро	ssibl	е	Pro	bable	Multiple
				Bef	ore C	ontro	ols			Α	fter I	nitial	Contr	ols		Afte	r Ado	ditior	nal Co	ntrols	
Item or activity	Hazard	(s)	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	Initial Cont	rols	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk = (AxBxC)+E	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	% Risk Reduction
Room space	Low spa	ace	2	3	4	0	24	Hand glov													
Control panel Inspection.	Shock(AC	C/DC)	1	3	5	0	15	safety sho helmet.													
Control panel	Emit heat device and		5	2	5	0	50	Effective functioning													
CT terminal open	Meter burnin	ng	1	5	3	0	15	Proper tigh	ten.												
Short ckt.	Fire		3	5	3	0	45	Firefightir equipme													
Lose connection	onnection properly 5 2 1 0 10							Proper tigh	ten.												
Further Descript	Further Description of Controls Added to Reduce Risk:																				
							21 to40				4	1 to60			31 to80				81	or greater	
	Negligible Acceptab							Acceptable				Mc	derate	)	Su	bstant	ial			In	tolerable



#### JOB RISK ASSESSMENT FOR CONTROL ROOM

Severity (C)   First Aid Only   Treatment   Lost Time   Property   Property	Partial Death or			,	3			2		1		<b>→</b>			Poir Para										
Severity (C)	Partial Permanent	≤once/day	k	/wee	nce/	≤oı	1	≤once/month	ır	nce/yea	≤o	/			F	g	ance, Test, Trouble	anel Mainten							
Sefore Additional Controls   Sefore Additio		Partial Disability		Time	ost T	Lo					F		erity	Sev											
Job Step/Task  Hazard  Control(s)  Z V and D D D D D D D D D D D D D D D D D D D		Probable				-		Unlikely	′	Jnlikely	ι		)	([											
Operation/Cleaning/ Wiring/ Continuity test/ functionality test/ functionality test/ troubleshooting.  Use of electrical appliances  Electrocution injury  Electrocution  Operation/Cleaning/ EVAC shock  220 or 110 VDC shoes, helmet. Insulated tools.  Hand gloves, safety shoes, helmet. Insulated tools.  N 2 1 3 5 0 30  N 2 1 4 2 0 16  N 2 1 1 2 0 4  Operation/Cleaning/ EVAC shock  Short Ckt.  Burning from Electric heater  Use of electrical appliances  All damaged electrical appliances shall be removed from service, use proper PPE  Use of Metallic  Electrocution or Metallic tapes &	ontrols	Controls	onal	<u>dditi</u>	er Ad	Afte				rols	Cont	onal (	dditio	re A	Beto				1						
Wiring/ Continuity test/ functionality test/ functionality test/ Short Ckt.  Short Ckt.  Burning from Electric heater  Use of electrical appliances  Electrocution injury  Use of Metallic  Electrocution or Metallic tapes & Short Ckt.  N 2 1 3 5 0 30	Legal Exposure Risk* (AxBxCxD)+E  Reduction	Legal Exposure Risk	Likelihood D	ety N 2 2 5 3 0 60						Control(s)	lazard	н	Job Step/Task												
test/ functionality test/ troubleshooting.  Short Ckt.  Burning from Electric heater  Use of electrical appliances  Electrocution injury  All damaged electrical appliances shall be removed from service, use proper PPE  Use of Metallic  Electrocution or Metallic tapes &				Insulated																					
troubleshooting.  Burning from Electric heater  Use of electrical appliances  Electrocution injury  All damaged electrical appliances shall be removed from service, use proper PPE  Use of Metallic  Electrocution or Metallic tapes &											0	5	3	1	2	Ν	•		shock	test/ functionality					
Use of electrical appliances  Electrocution or language electrical appliances shall be removed from service, use proper PPE  Use of Metallic  Electrocution or Metallic tapes &										16	0	2	4	1	2	Ν									
appliances injury appliances shall be removed from service, use proper PPE  Use of Metallic Electrocution or Metallic tapes &										4	0	2	1	1	2	N				troubleshooting.					
										48	0	3	2	4	2	N	appliances shall be removed from se	cution or							
Conductive shall avoid where applicable, use of proper PPE										54	0	3	3	3	2	N	conductive equipershall avoid where applicable, use of	cution or		Tapes and Other Conductive					
Further Description of Controls Added to Reduce Risk:		<u> </u>	1	1											•										
*Risk 0 to20 21 to40 41 to60 61 to80	81 or greater	81 0				80	\$1 to!			n60	41 tc			Ī	<u> </u>	l to/	*Risk 0 to20								
Negligible Acceptable Moderate Substantial	Intolerable													INION											

Each hazard should occupy one line in the risk table. That is, the risk from each hazard is to be assessed individually. A single activity must be entered three times in the table since there are three hazards associated with this activity.



# FACILITY RISK ASSESSMENT FOR SWITCH YARD (ISOLATOR)

									Point	Valu	e →		1		2		3			4	5
									Paran	neter	. ↑		1		2		3			4	5
Area/Facility Titl	e: Switch yard	(Isolator	)							cupa )r Us			≤once/	/year	≤once/month	≤ond	ce/we	eek	≤on	ce/day	≤once/shift
									S	ever	ity		First On	ly	Medical Treatment	Los	st Tin	ne		artial ability	Death or Permanent Disability
									Lik	eliho	ood		Ver Unlik		Unlikely		ssibl			bable	Multiple
				Bef	ore C	ontro	ols			Α	fter	Initia	l Contr	ols		Afte	r Ad	ditior	nal Co	ntrols	
Item or activity	Hazard (	(s)	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	Initial Cont	rols	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk = (AxBxC)+E	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	% Risk Reduction
Schedule & Emergency maintenance	Fall from heig	ht	3	5	3	0	45	Safety belt, s shoes, helr proper use ladder.	met, e of												
	High Voltage	shock	3	5	3	0	45	Proper ground hang gloves, belt, safety sh helmet, ladde	safety noes,												
	Porcelain E	Blast	1	5	5	0	25	Safety sho helmet													
	Bird or squirrel or						32	Inspection, I air gun, reg cleaning of gi & bushe	gular rasses												
Overhead Lines							80	Use proper F maintain sa distance	PPE, afe												
Further Descript	tion of Controls	Added to	Re	duce	Risk	:															
							21 to40				4	1 to60		(	61 to80	)			81	or greater	
								Acceptable				М	oderate	)	Su	ıbstant	ial				tolerable



# JOB RISK ASSESSMENT FOR SWITCH YARD (ISOLATOR)

						lue -	<b>→</b>		1	2			3			4		5
				Para														
Job Title: Switch Yard		anaa		F	requ (E	iency 3)	/	≤0	once/year	r ≤once/montl	า	≤oı	nce/\	veek		≤once	e/day	≤once/shift
Emergency	or Schedule mainten	ance			(0				First Aid Only	Medical Treatment		Lo	ost T	ime		Par Disa		Death or Permanent Disability
					([				xtremely Unlikely	Unlikely		_	ossi			Prob		Multiple
	Γ	T		Befo	re A	dditio	onal	Cont	rols			Afte	er Ac	lditio	nal (	Contro	ls	
Job Step/Task	Hazard	Control(s)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	% Risk Reduction
Cleaning/ Nut bolt	Stress	Hang gloves, safety belt,	Υ	4	2	3	3	0	72									
tightening / Isolator changing	Fall down from height.	safety shoes, helmet, ladder, proper tools &	Υ	2	1	4	4	0	32									
	P.T charge	tackle chain ton.	Υ	5	1	5	2	0	50									
During grounding led connection.	Voltage induction	Hand gloves safety belt, safety shoes, helmet, hot stick.	Υ	1	2	3	3	0	18									
Measuring Insulation, Contact resistance.	LV shock	Hand gloves safety belt, safety shoes, helmet, grounding,	Υ	2	1	4	3	0	24									
Use of electrical appliances	Electrocution or injury	All damaged electrical appliances shall be removed from service, use proper PPE	N	2	4	2	3	0	48									



#### JOB RISK ASSESSMENT FOR SWITCH YARD (ISOLATOR)

#### (Contd.)

Use of Metallic Tapes and Other Conductive Equipment	Electrocu injury		conductive equipout shall avoid where applicable, use of proper PPE	<b>:</b>	N	2	3	3	3	0	54								
Further Description of	Controls A	dded to Redi	uce Risk:																
*Risk		(	) to20	21	to40	)				41 tc	060		61 1	080			81 or g	reater	
		Ne	egligible	Acc	eptal	ole			Ν	/lode	rate		Subs	tantia			 Intole	rable	

Each hazard should occupy one line in the risk table. That is, the risk from each hazard is to be assessed individually. A single activity must be entered three times in the table since there are three hazards associated with this activity.



#### FACILITY RISK ASSESSMENT FOR LIGHTENING ARRESTOR

									Point				1		2		3			4	5
Area/Facility Titl	le: Switch vard	(Liahtnir	.α Λ	rroc	tor)				Paran	neter cupa	<u> </u>	+									
Area/Facility Titl	le. Switch yard (	Ligitiiii	ıy A	1162	tor)					r Us			≤once/	year	≤once/month	≤ond	ce/we	eek	≤on	ce/day	≤once/shift
									S	everi	ty		First A		Medical Treatment	Los	t Tim	ne		artial ability	Death or Permanent Disability
									Lik	eliho	od		Ver Unlik		Unlikely	Po	ssibl	е	Pro	bable	Multiple
	T			Bef	ore C	ontro	ols			Α	fter I	nitia	l Contr	ols		Afte	r Ad	ditior	nal Co	ntrols	
Item or activity	Hazard (	s)	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	Initial Cont	rols	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk = (AxBxC)+E	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	% Risk Reduction
Schedule & Emergency maintenance.	Fall from heigh	ht	3					Safety belt, s shoes, helr ladder.	net,												
							60	Proper ground hang gloves, belt, safety sh helmet, ladde	safety noes,												
	Porcelain E	Blast	1	5	5	0	25	Safety sho helmet	es,												
	Bird or squirrel or snake 4 2 4						32	Inspection, I air gun, reg cleaning of gr and bushe	jular rasses												
Overhead Lines							80	Use proper F maintain sa distance	afe												
Further Descript	tion of Controls	Added to	Re	duce	Risk	:															
*Risl	k		to2					21 to40				4	1 to60		6	61 to80	)				or greater
						Acceptable				Мс	oderate	)	Su	bstant	ial			In	tolerable		



#### JOB RISK ASSESSMENT FOR LIGHTENING ARRESTOR

				Poin Para			<b>→</b>		1	2			3			4	ļ	5
Job Title: Switch yard Emergency	(Lightning Arrestor) or Schedule maintena	ance		F	requ (E	iency 3)	/	≤0	nce/year	≤once/month	1	≤or	nce/v	week		≤once	e/day	≤once/shift
					Seve (C	,		ı	First Aid Only	Medical Treatment		Lo	ost T	ime		Par Disal		Death or Permanent Disability
					(D				xtremely Unlikely	Unlikely			ossi			Prob		Multiple
	T	T		Beto	re A	dditio	onal (	Cont	rols			Afte	er Ac	ditio	nal (	Contro	ls	
Job Step/Task	Hazard	Control(s)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	% Risk Reduction
Cleaning/ Nut bolt	Stress	Hang gloves, safety belt,	Υ	4	2	3	3	0	72									
tightening /L.A changing	Fall down from height.	safety shoes, helmet, ladder, proper tools &	Υ	2	1	4	4	0	32									
	L.A charge	tackle chain ton.	Υ	5	1	5	2	0	50									
During grounding led connection.	Voltage induction	Hand gloves safety belt, safety shoes, helmet, hot stick.	Υ	1	2	2	3	0	12									
Measuring Insulation	LV shock	Hand gloves safety belt, safety shoes, helmet, grounding,	Υ	2	1	4	3	0	24									
Use of electrical appliances	Electrocution or injury	All damaged electrical appliances shall be removed from service, use proper PPE	N	2	4	2	3	0	48									_



#### JOB RISK ASSESSMENT FOR LIGHTENING ARRESTOR

(Contd.)

Use of Metallic Tapes and Other Conductive Equipment	Electrocuti injury	on or	Metallic tapes & conductive equipous shall avoid where applicable, use of proper PPE		N	2	3	3	3	0	54										
Further Description of	Controls Add	ded to Redu	uce Risk:							'		•	•	•		<b>'</b>	,	•		•	
*Risk		(	) to20	21	to40	)				41 tc	60		61	1 to8	0				81 or	greate	
		Ne	egligible	Acc	eptal	ole			Λ	1ode	rate		Sub	stan	itial				Intole	erable	

Each hazard should occupy one line in the risk table. That is, the risk from each hazard is to be assessed individually. A single activity must be entered three times in the table since there are three hazards associated with this activity.



# FACILITY RISK ASSESSMENT FOR SWITCH YARD (POTENTIAL TRANSFORMER)

									Point Paran				1		2		3			4	5
Area/Facility Tit	le: <b>Switch yar</b> d	d (Potent	ial T	rans	sform	er)			Oc	cupa Or Us	ncy		≤once/	year	≤once/month	≤ond	ce/we	eek	≤on	ce/day	≤once/shift
									S	everi	ty		First /	у	Medical Treatment	Los	st Tin	ne		artial ability	Death or Permanent Disability
									Lik	eliho			Ver Unlik	ely	Unlikely		ssibl			bable	Multiple
				Bef	ore C	ontro	ols			Α	fter	nitia	Contro	ols		Afte	er Ad	ditior	nal Co	ntrols	
Item or activity	Hazard	(s)	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	Initial Cont	rols	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk = (AxBxC) + E	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	% Risk Reduction
Schedule & Emergency maintenance.	Fall from heig	ght	3 5 4 0 60					Hang glov safety belt, s shoes, helr ladder.	safety met,												
	High Voltage	e shock	3	5	4	0	60	Proper ground hang gloves, belt, safety sh helmet, ladde	safety noes,												
	Porcelain	Blast	1	5	5	0	25	Safety sho helmet	es,												
	Bird or squirrel or snake 4 2 4 0						32	Inspection, lair gun, reg cleaning of gr and bush	gular rasses												
Overhead Lines							80	Use proper F maintain sa distance	afe												
Further Descrip	tion of Controls	s Added to	Re	duce	Risk	:															
*Ris	*Risk 0 to20							21 to40				4	1 to60		6	61 to80	)			81	or greater
-	Negligible							Acceptable				Мс	derate	)		ıbstant					tolerable



# JOB RISK ASSESSMENT FOR SWITCH YARD (POTENTIAL TRANSFORMER)

				Poin Para			<b>→</b>		1	2			3			4		5
	(Potential Transformor Schedule maintena			Frequency (B)				≤c	once/year	≤once/month	1	≤once/week				≤onc∈	e/day	≤once/shift
					Seve (C	•		F	First Aid Only	Medical Treatment		Lo	st T	ime		Par Disal		Death or Permanent Disability
					(D			ı	xtremely Unlikely	Unlikely			ossi			Prob		Multiple
	T	ı		Befo	re A	dditio	onal (	Cont	rols			Afte	er Ac	lditio	nal Controls			
Job Step/Task	Hazard	Control(s)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	% Risk Reduction
Cleaning/ Nut bolt	Stress	Hang gloves, safety belt,	Υ	4	2	3	3	0	72									
tightening /P.T changing	Fall down from height.	safety shoes, helmet, ladder, proper tools &	Υ	2	1	4	4	0	32									
	P.T charge	tackle chain ton.	Υ	5	1	5	2	0	50									
During grounding led connection.	Voltage induction	Hand gloves safety belt, safety shoes, helmet, hot stick.	Υ	1	2	3	3	0	18									
Measuring Insulation	LV shock	Hand gloves safety belt, safety shoes, helmet, grounding,	Υ	2	1	4	4	0	32									
Use of electrical appliances	Electrocution or injury	All damaged electrical appliances shall be removed from service, use proper PPE	N	2	4	2	3	0	48									_



#### JOB RISK ASSESSMENT FOR SWITCH YARD (POTENTIAL TRANSFORMER)

(Contd.)

Use of Metallic Tapes and Other Conductive Equipment	Electrocution injury	shall avo	ve equipment id where e, use of	N	2	3	3	3	0	54								
Further Description of Controls Added to Reduce Risk:																		
*Risk		0 to20 Negligible	21 Acce	to4	-				41 to 1ode				61 to ubsta				greater erable	

Each hazard should occupy one line in the risk table. That is, the risk from each hazard is to be assessed individually. A single activity must be entered three times in the table since there are three hazards associated with this activity.



# FACILITY RISK ASSESSMENT FOR SWITCH YARD (POWER TRANSFORMER)

								Point \				1		2		3			4	5		
Area/Facility Title: Switch Yard (Power Transformer)										Occupancy Or Use				≤once/month	≤once/we		eek	≤on	ce/day	≤once/shift		
										Severity			Aid ly	Medical Treatment	Lost Time		ne		artial ability	Death or Permanent Disability		
									eliho			Vei Unlik	ély	Unlikely	_	ssibl			bable	Multiple		
			Bef	ore C	ontro	ols			Α	fter I	nitia	I Contr	ols		Afte	r Ad	ditio	nal Co	ntrols			
Item or activity	Hazard (s)	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	Initial Cont	rols	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk = $(AxBxC)+E$	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	% Risk Reduction		
Schedule &	HV shock	2	5	3	0	30	Proper isolati															
emergency maintenance	LV shock	2	5	3	0	30	grounding, hand gloves, safety shoes, safety belt. Helmet. Ladder. Safe distance from live parts.		gloves, safety shoes, safety belt. Helmet. Ladder. Safe distance													
	Fall down from height	5	4	3	0	60	Hand gloves, s shoes, safety Helmet. Lad	belt. Ider														
	HV shock	2	5	3	0	30	Proper isolati grounding, h gloves, safety safety belt. He Ladder. Safe di from live pa	nand shoes, elmet. istance														
Transformer oil	High temperature due to short circuitcan can cause explosion	4	4	4	0	64	Cooling fan, protection sys oil schedule c															



# FACILITY RISK ASSESSMENT FOR SWITCH YARD (POWER TRANSFORMER)

#### (cond.)

Transformer breather box	Presence of humidity in the breather can can explosion	e air ause	1	2	3	0	6	Monitoring											
CT , PT,LA body	Burst & human	injury	1	2	3	0	6	Regular checked any abnormality											
Switch Yard equipment	Electrocution		4	5	4	0	80	Follow safety sign, Use appropriate PPE, proper earthing.											
Overhead Lines	near approach	ge	5	4	4	0	80	Use proper PPE, maintain safe distance											
Further Descrip	tion of Controls A	dded to	Re	duce	Risk	:													
*Risk 0 to20 Negligible			P	21 to40 Acceptable	41 to60 Moderate					Su		81 or greater Intolerable							



# JOB RISK ASSESSMENT FOR SWITCH YARD (POWER TRANSFORMER)

				Poin Para		lue – er ↓	<b>→</b>		1	2			3			4	ļ	5
Job Title: Switch Yard (Power Transformer) Power Transformer Schedule & Emergency Maintenance							Frequency (B)			≤once/mont	≤once/month					≤once	e/day	≤once/shift
					Sev (C	<b>(</b> )			First Aid Only	Medical Treatment		Lo	ost T	ïme		Par Disal		Death or Permanent Disability
					([				xtremely Unlikely	Unlikely			ossi			Prob		Multiple
							onal (	Cont	rols			Afte	er Ac	dditio	nal (	Contro	ls	
Job Step/Task	Hazard	Control(s)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	% Risk Reduction
Cleaning/ Tightening	Spillage	Proper isolation & grounding,	Υ	4	2	3	3	0	72									
	Electrical shock	hand gloves, safety shoes,	Υ	2	2	3	3	0	36									
	Short circuit	safety belt. Helmet. Ladder	Υ	4	2	2	3	0	48									
Insulation measurement	Electrical shock	Hand gloves, safety shoes, safety belt. Helmet. Proper grounding.	Υ	2	2	3	3	0	48									
	Short circuit	g. Garianig.	Ν	2	2	2	4	0	24									
Testing (O.C, S.C,	Electrical shock	Hand gloves, safety	Υ	2	2	2	3	0	24									
Tan-delta, SFRA, Winding resistance etc.)	Short circuit	shoes, safety belt. Helmet. Proper grounding	N	2	2	2	4	0	24									
Inspection	Suffocation	Proper ventilation	у	1	1	5	5	0	25									
Use of electrical appliances	Electrocution or injury	All damaged electrical appliances shall be removed from service, use proper PPE	N	2	4	2	3	0	48									



# JOB RISK ASSESSMENT FOR SWITCH YARD (POWER TRANSFORMER)

(Contd.)

Use of Metallic Tapes and Other Conductive Equipment  Further Description of	Electrocution injury  Controls Add		conductive equipment shall avoid where applicable, use of proper PPE		2	3	3	3	0	54								
·				21 to	40				11 +	·60		21 40	90			01 05 4	arootor.	
*Risk			) to20	21 to					41 to			61 to					greater	
		Ne	egligible A	ccept	able			N	Иode	rate	Sı	ıbsta	ıntial			Intole	erable	

Each hazard should occupy one line in the risk table. That is, the risk from each hazard is to be assessed individually. A single activity must be entered three times in the table since there are three hazards associated with this activity.



# **FACILITY RISK ASSESSMENT FOR RELAY PANEL**

									Point Paran				1		2		3			4	5
Area/Facility Tit	e: <b>Relay Pane</b>	l								cupa Or Us	•		≤once/	/year	≤once/month	≤ond	ce/we	eek	≤on	ce/day	≤once/shift
									S	everi	ty		First . Onl		Medical Treatment	Los	st Tim	ne		artial ability	Death or Permanent Disability
									Lik	eliho	od		Ver Unlik		Unlikely	Po	ssibl	е	Pro	bable	Multiple
				Bet	ore C	ontro	ols			Α	fter I	nitia	l Contr	ols		Afte	r Ad	ditior	nal Co	ntrols	
Item or activity	Hazard	(0)	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	Initial Cont	rols	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk = (AxBxC)+E	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	% Risk Reduction
Maintenance,	Compact	area	1	3	3	0	9	Proper isolati													
testing &	LV AC sh	nock	1	2	5	0	10	grounding, gloves, safety	hand												
troubleshootin	DC sho	ck	1	4	3	0	12	Safety belt.													
g	HV open CT	shock	1	5	3	0	15	Safe distance	from												
	Electrical h	eater	1	1	3	0	3	live parts													
	Body not ea proper		5	2	1	0	10														
Overhead Lines	near approa	tage	4	0	80	Use proper F maintain sa distance	afe														
Further Descrip	tion of Controls	Added to	Re	duce	Risk	:															
*Ris	k		:0				21 to40				4	1 to60		6	61 to80	)			81	or greater	
	Negligible Accep											Mo	oderate	)	Su	ıbstant	ial			In	tolerable



### JOB RISK ASSESSMENT FOR RELAY PANEL

							it Val	lue –	<b>→</b>		1	2			3			2	4	5
Job Title: Relay Pane Maintenane	el ce/ Test/ Troub	leshoot	ing					iency	/	≤0	once/year	≤once/mor	ıth	≤c	nce/	week	(	≤onc	e/day	≤once/shift
			·				Seve (C	erity		ı	First Aid Only	Medical Treatmer	t	L	ost T	ime		Pai Disa	rtial bility	Death or Permanent Disability
							(E				xtremely Unlikely	Unlikely	,		Poss				able	Multiple
	1		ı			Befo	re A	dditic	onal (	Cont	rols			Aft	er A	dditic	nal (	Contro	ols	
Job Step/Task	Hazard	i	Control(s	)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	% Risk Reduction
Cleaning/ wiring/	HV open ct s	nock	Proper isolation & g		N	2	1	5	2	0	20									
continuity test/ relay	LV ac shock		hand gloves, safe		N	2	1	2	5	0	20									
functionality test.	Dc shock		safety belt. Helm distance from live p		Ν	2	1	4	2	0	16									
	Burning from	heater	distance nom live p	aits	Ν	2	1	1	2	0	4									
	Pinching				Ν	2	1	1	2	0	4									
Use of electrical appliances	Electrocution injury	or	All damaged ele appliances shal removed from s use proper PPE	l be ervice,	N	2	4	2	3	0	48									
Use of Metallic Tapes and Other Conductive Equipment	Electrocution injury	or	Metallic tapes 8 conductive equi shall avoid whe applicable, use proper PPE	pment re	N	2	3	3	3	0	54									
Further Description of	Controls Added	to Red				•							1		•		•			
*Risk		-	) to20	21	to4	n				41 to	260		61 to	<u> </u>			ı		81 or g	reater
L/ISV			egligible		epta						erate		Subst		<u> </u>		-		Intole	
		INC	gligible	700	cpia	DIE				vioue	ialt		วนมอเ	arilla					IIIIOIE	Iabic

Each hazard should occupy one line in the risk table. That is, the risk from each hazard is to be assessed individually. A single activity must be entered three times in the table since there are three hazards associated with this activity.



# FACILITY RISK ASSESSMENT FOR SF6 GAS FILLING

									Point	Value	е →		1		2		3			4	5
Area/Facility Titl	e: Switch vard	(SF6 Ga	s Fil	llina	in C.	B)			Paran	neter	<b>\</b>										
,	,	(		J		,				cupa Or Us		:	≤once/	/year	≤once/month	≤ond	ce/we	eek	≤on	ce/day	≤once/shift
									S	everi	ty		First . Onl		Medical Treatment	Los	t Tin	ne		artial ability	Death or Permanent Disability
									Lik	eliho			Ver Unlik	ely	Unlikely		ssibl			bable	Multiple
				Bet	fore C	ontro	ols			Α	fter I	nitial	Contr	ols		Afte	r Ad	ditior	nal Co	ntrols	
Item or activity	Hazard	(s)	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	Initial Cont	rols	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk = $(AxBxC)+E$	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	% Risk Reduction
Gas filling	High pressu		3	3	4	0	36	Hand glov musk, saf shoes, safet helmet. Mai proper instru	ety y belt, ntain												
Further Descript	ion of Controls	s Added t	o Re	educe	e Risk	:															
*Risl	<		0 to2					21 to40					1 to60			61 to80					or greater
		Ne	eglig	ible				Acceptable				Mc	derate	<del>)</del>	Su	bstant	ial			<u> </u>	tolerable



#### JOB RISK ASSESSMENT FOR SF6 GAS FILLING

					Poin Para		lue – er ↓	<b>→</b>		1	2			3			2	1	5
Job Title: Switch yard	(SF6 Gas Filling in C.I	3)			F	requ (E	iency 3)	/	≤c	once/year	r ≤once/month	1	≤oı	nce/v	veek	:	≤onc	e/day	≤once/shift
							erity		F	First Aid Only	Medical Treatment		Lo	ost T	ime		Pai Disa	rtial bility	Death or Permanent Disability
						([			ı	xtremely Unlikely	Unlikely			ossi				able	Multiple
					Befo	re A	dditio	onal (	Cont	rols			Afte	er Ad	lditio	nal (	Contro	ols	
Job step/task	Hazard	Control(s)		Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	% Risk Reduction
Rolling gas cylinder from trolley	Cylinder fall down	Hand gloves, musk safety shoes, safet		Υ	3	3	3	2	0	54									
Gas filling	Gas leakage	helmet, careful car		Ν	2	2	4	2	0	32									
	Leakage of gas pipe			Υ	2	2	3	2	0	24									
Without regulator filling	Over charge			Υ	3	3	4	1	0	36									
During opening & tithing nozzle.	Man fall down from height.	Hand gloves, safet shoes, safety belt, helmet.	ty	Υ	2	2	4	3	0	48									
Further Description of	Controls Added to Red	uce Risk:	<u> </u>																
*Risk		0 to20	21	to4(	)				41 to	o60	6	31 to	80					81 or o	reater
·		egligible	Acce							erate		bsta						Intole	

Each hazard should occupy one line in the risk table. That is, the risk from each hazard is to be assessed individually. A single activity must be entered three times in the table since there are three hazards associated with this activity.



# FACILITY RISK ASSESSMENT FOR TRANSMISSION LINE

									Point Paran				1		2		3			4	5
Area/Facility Tit	le: <b>Transmissi</b>	on Line								cupai or Us		:	≤once/	year	≤once/month	≤one	ce/we	eek	≤on	ce/day	≤once/shift
									S	everi	ty		First A	у	Medical Treatment	Los	st Tin	ne		artial ability	Death or Permanent Disability
									Lik	eliho			Ver Unlik	ely	Unlikely	Po	ssibl	е	Pro	bable	Multiple
				Bef	ore C	ontro	ls			Α	fter I	nitial	Contr	ols		Afte	r Ad	ditior	nal Co	ntrols	
Item or activity	Hazard	(0)	Occupancy a	Severity b	Likelihood c	Legal exposure	Risk* (axbxc)+e	Initial conti	rols	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk = (AxBxC)+E	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	% Risk Reduction
Schedule and emergency maintenance	Hv sho		2	5	4	0	40	Proper isolati grounding, h gloves, safety safety belt. He Proper use of I Safe distance live parts Safety belt. H	nand shoes, elmet. ladder. e from s.												
Overhead Lines	height 1 5 4 head Contact with or							Proper use of Use proper F maintain sa distance	PPE, afe												
Further Descrip	tion of Controls	Added to	o Re	duce	Risk	:															
*Ris	k		) to2 egligi					21 to40					1 to60			61 to80					or greater
		Acceptable				Mc	derate	)	8	ubstant	ial			In	tolerable						



# JOB RISK ASSESSMENT FOR TRANSMISSION LINE

				Poin Para		lue – er ↓	<b>→</b>		1	2			3			4	ļ	5
Job Title: <b>Transmissio Schedule &amp;</b>	on Line Emergency Maintena	nce		F		iency 3)	/	≤c	once/year	≤once/month	1	≤or	nce/v	week	(	≤once	e/day	≤once/shift
					Sev (0	erity C)		F	First Aid Only	Medical Treatment		Lo	ost T	ïme		Par Disal		Death or Permanent Disability
					([			(	xtremely Unlikely	Unlikely			ossi			Prob		Multiple
		T		Beto	re A	dditio	onal (	Cont	rols			Afte	er Ac	ditio	nal (	Contro	ls	
Job Step/Task	Hazard	Control(s)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	% Risk Reduction
Cleaning/ tightening/	Stressors	Proper isolation & grounding,	Υ	2	2	3	3	0	36									
nut bolt changing,	Fall down from height	hand gloves, safety shoes, safety belt. Helmet. Ladder	Υ	2	1	5	4	0	40									
Changing disc	Stressors		Υ	2	2	2	3	0	24									
insulator. Tower angle replacement	Fall down from height		N	2	2	3	4	0	48									
Row or tree trimming.	Stressors	Proper isolation & grounding,	Υ	4	2	4	2	0	64									
	Fall down from height	hand gloves, safety shoes, safety belt. Helmet. Ladder, saw, rough, hot stick	Υ	4	2	4	2	0	64									
	Hv shock		Υ	2	2	5	3	0	60									
Use of electrical appliances	Electrocution or injury	All damaged electrical appliances shall be removed from service, use proper PPE	N	2	4	2	3	0	48									



## JOB RISK ASSESSMENT FOR TRANSMISSION LINE

(Contd.)

Use of Metallic Tapes and Other Conductive Equipment	Electrocution injury	or Metallic tapes & conductive equi shall avoid when applicable, use proper PPE	pment e	N	2	3	3	3	0	54								
Further Description of	Controls Added to	Reduce Risk:																
*Risk		0 to20	21	to40	0				41 to	060		61 to	080			81 or 9	greater	
		Negligible	Acc	eptal	ble			N	Лode	rate	S	ubsta	antial			Intole	erable	

Each hazard should occupy one line in the risk table. That is, the risk from each hazard is to be assessed individually. A single activity must be entered three times in the table since there are three hazards associated with this activity.



## FACILITY RISK ASSESSMENT FOR FIRE FIGHTING SYSTEM

									Point Paran		_		1		2		3			4	5
Area/Facility Tit	le: Fire Fightir	ng Systei	m							cupa Or Us		:	≤once/	/year	≤once/month	≤ond	ce/we	eek	≤on	ce/day	≤once/shift
									S	everi	ty		First A		Medical Treatment	Los	t Tin	ne		artial ability	Death or Permanent Disability
					Lik	eliho	od		Ver Unlik	-	Unlikely	Po	ssibl	е	Pro	bable	Multiple				
				Bef	ore C	ontro	ls			Α	fter I	nitial	Contr	ols		Afte	r Ad	ditior	nal Co	ntrols	
Item or activity	Hazard	(s)	Occupancy a	Severity b	Likelihood c	Legal exposure	Risk* (axbxc)+e	Initial conti	rols	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk = (AxBxC)+E	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	% Risk Reduction
Fire Fighting system	Fire		2	2	2	0	8	PPE & proper s instruction	safety												
Portable ABC Dry Powder	Pressurized C	ylinder	1	1	2	0	2	Protection as p Safety instruction													
Portable CO2 Extinguisher	Pressurized C	•	1	1	2	0	2	Protection as p Safety instruction													
DCP Extinguisher	Pressurized C		1	1	2	0	2	Protection as p Safety instruction	on												
Portable Dry Powder	Pressurized C	2	Protection as p Safety instruction																		
Further Descrip	tion of Controls	Risk																			
*Ris	k				21 to40				4	1 to60		6	1 to80	)			81	or greater			
	*Risk 0 to20 21 to40  Negligible Acceptable											Mc	derate	<del>-</del>	Su	bstant	ial			ln	tolerable



#### JOB RISK ASSESSMENT FOR FIRE FIGHTING SYSTEM

							lue –	<b>→</b>		1		2			3			4	ļ	5
				Ľ	Para	amet	er ↓													
Job Title: Fire fighting	ng system				F	requ (E	iency 3)	,	≤o	nce/year	r	≤once/mont	h	≤0	nce/	week	(	≤once	e/day	≤once/shift
						Seve (C	erity C)		F	First Aid Only		Medical Treatment		L	ost T	ïme		Par Disa		Death or Permanent Disability
					L	ikeli (C	hood ))			xtremely Jnlikely	,	Unlikely		F	Possi	ble		Prob	able	Multiple
	_	_		E	3efo	re A	dditic	nal (	Cont	rols				Aft	er Ad	dditio	nal (	Contro	ls	
Job Step/Task	Hazard	Control(s)		Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	Α	ontrol(s) .dded to duce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	% Risk Reduction
Use of fire extinguisher	High pressure gas	Follow instructions carefully		Υ	3	1	2	2	0	12										
Further Description of	f Controls Added to Rec	duce Risk:		1			<u>                                       </u>	I	I				1	ı	ı	ı	ı			1
*Risk		0 to20	21	to40	)				41 to	060	<u> </u>		61 to	80					81 or g	ıreater
	N	legligible	Acce						/lode				ubsta						Intole	•

Each hazard should occupy one line in the risk table. That is, the risk from each hazard is to be assessed individually. A single activity must be entered three times in the table since there are three hazards associated with this activity.



# FACILITY RISK ASSESSMENT FOR OFFICE

									Point Paran				1		2		3			4	5
Area/Facility Titl	e: <b>Office</b>								Oce	cupai or Us	ncy	:	≤once/	/year	≤once/month	≤one	ce/we	eek	≤on	ce/day	≤once/shift
									S	everi	ty		First On	ly	Medical Treatment	Los	st Tin	ne		artial ability	Death or Permanent Disability
									Lik	eliho			Ver Unlik	ely	Unlikely		ssibl			bable	Multiple
				Bef	ore C	ontro	ls			Α	fter I	nitia	Contr	ols		Afte	r Ad	ditior	nal Co	ntrols	
Item or activity	Hazard	(s)	Occupancy a	Severity b	Likelihood c	Legal exposure	Risk* (axbxc)+e	Initial cont	rols	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk = (AxBxC)+E	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	% Risk Reduction
Office	Posture, Eye	strain	5	1	4	0	20	Protection as Safety instruc													
Computer, Printer	Posture, Eye	strain	5	1	4	0	20	Protection as Safety instruc													
computer	electricity, ra	diation	5	1	4	0	20	Protection as Safety instruc													
Toilets	Human Wast	te	2	2	3	0	12	Clean & dispo	osal												
Electric heater	Fire, Electric		1	4	0	20	Maintain cautions	safety													
Further Descript	tion of Controls	s Added to	o Re	duce	Risk	:															
*Risl	k	(	) to2	20				21 to40				4	1 to60			61 to80				81	or greater
			-	Acceptable				Mc	derate	)	S	ubstant	ial			In	tolerable				



#### JOB RISK ASSESSMENT FOR OFFICE

					Poir Para		lue – er ↓	<b>→</b>		1	2			3			2	1	5
Job Title: Office							uency	/	≤c	nce/yea	r ≤once/month	ı	≤o	nce/\	week		≤once	e/day	≤once/shift
							erity		F	First Aid Only	Medical Treatment		Lo	ost T	ïme		Par Disa		Death or Permanent Disability
					L	_ikeli (⊑	hood ))			xtremely Unlikely	Unlikely			Possi			Prob		Multiple
					Befo	re A	dditio	onal (	Cont	rols			Afte	er Ac	dditio	nal (	Contro	ls	
Job Step/Task	Hazard	Control(s	)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	% Risk Reduction
Improper sitting	Back pain	Follow ergonomic	CS	Υ	4	5	1	3	0	60									
Use of computer	Eye strain, Headache	Follow ergonomic		Υ	4	5	1	3	0	60									
Use of electric heater	Fire, Electric shock	Maintain safety c	autions	Υ	1	5	1	3	0	15									
Use of other electrical equipment	Fire, Electric shock	Maintain safety c		Υ	1	5	1	3	0	15									
Use of other electrical appliances	Electrocution or injury	All damaged ele appliances shal removed from s use proper PPE	ll be service,	N	2	4	2	3	0	48									
Further Description of	Controls Added to Red			ī	1	1	1						ı		ı			ı	ı
*Risk		0 to20	+	to4					41 to			61 to						81 or g	
	N-	egligible	Acc	eptal	ble			Λ	/lode	rate	Su	ıbsta	ntial					Intole	rable

Each hazard should occupy one line in the risk table. That is, the risk from each hazard is to be assessed individually. A single activity must be entered three times in the table since there are three hazards associated with this activity.



# FACILITY RISK ASSESSMENT FOR STORAGE

									Point				1		2		3			4	5	
										Parameter ↓												
Area/Facility Title: Storage											ncy e		≤once/	/year	≤once/month	≤once/week			≤on	ce/day	≤once/shift	
									S	everi	ty		First . Onl		Medical Treatment	Los	st Tin	ne		artial ability	Death or Permanent Disability	
									Lik	eliho	od		Ver Unlik		Unlikely	Po	ssibl	е	Pro	bable	Multiple	
Before Controls									After Init			l Contr	ols		After A			nal Co	ntrols			
Item or activity	Hazard	(s)	Occupancy a	Severity b	Likelihood c	Legal exposure	Risk* (axbxc)+e	Initial cont	rols	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk = (AxBxC)+E	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Legal Exposure	Risk* (AxBxC)+E	% Risk Reduction	
Hazardous material storage	Trimming & fa	all	4	1	3	0	12	Use of PPE														
Lube Oil Storage	Oil Spill and I	leakage	3	1	4	0	12	Use of PPE														
Waste Trimming & fall materials storage		4	1	3	0	12	Use of PPE															
Further Descript	tion of Controls	s Added to	o Re	duce	Risk	:		•							•	•					•	
*Ris	k	-	) to2	20		1		21 to40	Ī			1	1 to60			61 to80	١			Ω1	or greater	
								Acceptable					derate	<del></del>	Substantial						tolerable	



### JOB RISK ASSESSMENT FOR STORAGE

					Poin Para		ue –	<b>→</b>		1	2				3			2	1	5
Job Title: Storage							uency 3)		≤once/year		r ≤once/n	≤once/month		≤once/week			≤onc	e/day	≤once/shift	
					,	Seve (C	erity		F	First Aid Only	Medio Treatm			Lo	st T	ime			rtial bility	Death or Permanent Disability
						(D			l	xtremely Unlikely	Unlike	ely			ossi				able	Multiple
				E	3efo	re A	dditic	onal (	Cont	rols				Afte	er Ac	dditio	nal (	Contro	ls	
Job Step/Task	Hazard	Control(s)		Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	Control(s) Added to Reduce Ris		Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Legal Exposure	Risk* (AxBxCxD)+E	% Risk Reduction
Walking	Tripping	Sufficient light, Maint safety cautions	ain	N	2	4	1	4	0	16										
Picking any material	Falling	Maintain safety caution Use of PPE	ons,	N	2	4	1	4	0	16										
Further Description of	Controls Added to Red	uce Risk:																		
*Risk 0 to20				to40					41 to	060		61 to80							81 or g	reater
	Negligible Ac							Ν	/lode	erate		Substantial							Intole	rable

Each hazard should occupy one line in the risk table. That is, the risk from each hazard is to be assessed individually. A single activity must be entered three times in the table since there are three hazards associated with this activity.