

## **Disablement or Impairment of Critical Safety Equipment Request Permit Instructions**

### **Section 1: General Information**

This section requires completion of the following points:

- Requestor's name
- Requested start date and time
- Expected end date and time
- Affected system or equipment

### **Section 2: D/I Request**

This section requires identification of the following points:

- Unit- What is the unit name or functional location?
- Critical pieces of equipment
- Management of Change discussion

### **Section 3: Reason for D/I**

This section requires the justification for the disablement or impairment.

### **Section 4: Mode of Failure**

This section requires you to perform a risk assessment of operating while the D/I is in effect

### **Section 5: Potential Hazards to Personnel**

This section requires you to identify the potential hazards and the impacts on personnel or processes.

### **Section 6: Mitigations**

This section requires you to identify the mitigating controls to be implemented during the D/I.  
What will be implemented to minimize to exposure to personnel or processes?

### **Section 7: Detailed Description of D/I**

This section requires you to identify the details of how and where the D/I will be installed.

### **Section 8: Detailed Description of How to Remove the D/I**

This section requires a detailed description of how to remove the D/I once the work has been completed.

### **Section 9: Communication Plan**

This section describes how stakeholders and those in the affected areas are informed. Include the methods to be used (e.g. email lists, coordination meetings, tags, labelling)

### **Section 10: Approvals**

This section contains the approval signatures commensurate with the risk.  
This must also have the date and time that the approval has been granted.

### **Section 11: D/I Install Responsible Person**

This section requires the responsible person's name and signature to be completed before the D/I takes place.  
This is the person in control of the process while it is in place.

### **Section 12: D/I Terminated & Verified Operable**

This section requires that once the D/I has been completed that the termination has been completed and is safely operable.  
This must be signed by the responsible person for the D/I termination and is not necessarily the same person undertaking the D/I.

## Disablement or Impairment (D/I) Risk Assessment Tool/Permit

### Risk Assessment

SEVERITY						LIKELIHOOD					
	Injury or Illness	Facility or Key Capability	Operational Compliance, Performance	Damage, Fine, or Loss of Revenue, Reputational Risk	Damage to the Environment	EXTREMELY IMPROBABLE (Once in 10+ years)	IMPROBABLE (Once in 2- 10 years)	REMOTE (Once in less than 2 years)	Occasional (2-11 times per year)	Frequent (1-3 times per month)	Repetitive (4+ times per month)
<b>CATASTROPHIC</b>	Multiple fatalities	Total loss of facility	Potential threat to IGA with SD	Damage, fine, or loss greater than \$10,000	Irreversible Damage	4	4	5	5	5	5
<b>CRITICAL</b>	Single fatalities or multiple overnight hospital admissions	Loss of hoist capacity. Loss of underground access	Permit violation triggers an operational shutdown.	Damage, fine, or loss between \$5,000-\$10,000	Reversible but greater than \$10 M	3	3	4	5	5	5
<b>MAJOR</b>	Single overnight hospital admission	DOE required STOP WORK	DOE required STOP WORK	Damage, fine, or loss between \$1,500-\$5,000	Reversible but greater than \$1 M or large permit violation	2	2	3	3	4	4
<b>MINOR</b>	Medical treatment beyond first aid	Reduced underground access	NA	Damage, fine, or loss greater than \$1,500-\$500	Small permit violation	1	1	2	2	3	3
<b>NEGLIGIBLE</b>	First aid treatment	NA	NA	Damage, fine, or loss less than \$500	Small spill or air release	1	1	1	1	2	2
<b>NO SAFETY IMPLICATION</b>	NO SAFETY IMPLICATION	NO SAFETY IMPLICATION	NO SAFETY IMPLICATION	NO SAFETY IMPLICATION	NO SAFETY IMPLICATION	0	0	0	0	0	0

RISK LEVEL	ACTION REQUIRED	RISK ASSESSMENT TEAM	APPROVAL LEVEL
5	PERMIT REQUIRED	Level 2 Team	Executive Director
4	PERMIT REQUIRED	Level 2 Team	ESH Director
3	PERMIT REQUIRED	Level 1 Team	Director or Equivalent
2	PERMIT REQUIRED	Level 1 Team	Supervisor/Manager
1	PERMIT REQUIRED	Level 1 Team	Leadman

Verification Responsible Person

<b>Reviewed By</b>		<b>Score Determined</b>	
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### Section 1 - Requestor Information

Requestor's Name

Requested Start Date

Requested Start Time

Expected End Date

Expected End Time

Affected System or Equipment

### Section 2 - Location

Area/Location

Critical Control?

Select

### Section 3 - Reason

Reason for Disabling / Impairment:

### Section 4 - Failure Mode

Mode of Failure (What is the risk of operating while disabled / impaired):

### Section 5 - Potential Hazards

Potential Hazards to Personnel / Equipment / Environment:

### Section 6 - Mitigation

Mitigations /Alternate Protections:

### Section 7 - Controls Installed

Detailed description of how new control will be installed:

### Section 8 - Controls Removed

Detailed description of how new control will be removed:

## Section 9 - Communication Plan

### Communication Plan – reference list (not all inclusive)

Method Location	Email	7 am meeting	Big X Coordination Talk	Team Daily Toolbox Talk	Science Integration? Meeting	Project Manager	White Boards	Signage	E-signs	ESH Special Contacts	Phone Calls
Admin Building	X	X		X	X	X		X	X	X	X
Yates Headframe	X	X		X	X	X		X	X	X	X
Surface Laboratory	X	X		X	X	X		X	X	X	X
DKC	X	X		X		X		X	X	X	X
Foundry	X	X		X	X	X		X	X	X	X
WWTP	X	X		X		X		X	X	X	X
E&O	X	X		X	X	X	X	X	X	X	X
Underground						X					
Davis Campus	X	X	X	X	X	X	X	X	X	X	X
Ross Campus	X	X	X	X	X	X	X	X	X	X	X
KAJV	X	X	X	X	X	X	X	X	X	X	X
Non 4850 levels	X	X		X	X	X		X	X	X	X
Ross Headframe	X	X		X		X		X	X	X	X
Warehouse	X	X		X		X		X	X	X	X
ERT Building	X	X		X	X	X		X	X	X	X
Ross Machine Shop	X	X		X		X		X	X	X	X
Guard Shacks	X	X		X		X		X	X	X	X
Visitor Center	X	X		X		X		X	X	X	X
Outside Property Areas	X	X		X	X	X		X	X	X	X

### Section 10 - Approval

Required Approvals	Required	Name	Signature	Date	Time
Leadman	Select				
Supervisor	Select				
Director or Equivalent	Select				
Executive Director	Select				

### Section 11 - D/I Install Sign-off

Disablement/Impairment Install Responsible Person

Name	Signature	Date	Time

Verification Responsible Person

Name	Signature	Date	Time

### Section 12 - D/I Removal Sign-off

Disablement/Impairment Removal Responsible Person

Name	Signature	Date	Time

Verification Responsible Person

Name	Signature	Date	Time

## Example D/I Activities and Levels of Approval

	Foreman/ Work Lead	Supervisor	Dept Director	ESH Director	Laboratory Director
<b>Risk level</b>	1	2	3	4	5
<i>Safety System s (not all inclusive)</i>					
4100 Yates Sump "Fire water"				X	
Fire Sprinklers		X	X		
Communication systems			X	X	
Fire suppression on specific equipment		X			
CO sensors		X	X		
Fire alarm system			X		
Surface power generator			X		
Site access			X		
Power generators			X	X	
Inergen automatic fire suppression			X		
Site Access			X		
Seat belts		X			
Exhaust Surface Fans			X		X
Ventilation			X		X
Underground booster fans		X	X		
Stench delivery system				X	
Shaft deluge system		X	X		
Refuge chamber					X
AC units			X		
Fixed gas monitoring system			X		
Compressors			X		
Loss of incoming power				X	
Air handling systems		X	X		
Chillers			X		
Water treatment plants			X		
Uninterruptable power supplies	X	X			
O2 sensors	X	X			
Hoists					X
Entering a blasting "NO GO" zone					

## Qualified Person Checklist

Qualified personnel replacing D/I safeguards will be responsible for answering the following questions:

- What is the process variable to be monitored?
- What device will be used to monitor the process variable?
- How will the process be controlled?
- At what point must I react to prevent an unwanted event?
- Is there sufficient time for the actions needed to return the process to a safe state?
- Will this procedure provide the same level of protection as the safeguard?
- How many people are required? If more than one person, what kind of communication will be used?
- How long can I effectively act as a safeguard before I need to be relieved (due to fatigue, distraction, etc.)?
- Who do I need to be able to communicate with to monitor or shutdown anything?

Qualified operations personnel shall monitor the D/I safety-critical equipment until it is placed back in service. An operator is responsible for:

- Monitoring the function of the safety critical equipment
- Directly monitoring the event while D/I system and not performing other duties
- Assures monitoring activity occurs at the location of the component, device or panel of the D/I or blocked out safety critical equipment
- Assures monitoring is not interrupted for reasons such as breaks, lunch or other activities
- Monitoring for abnormal conditions and taking corrective action (close inlet valve, ESD system, etc.) to prevent an undesirable event