




HSE INSTRUCTION FOR ELECTRICAL ISOLATION/DE- ISOLATION CERTIFICATE

Instruction NO: IN-250-HSE-14

Approved By	Name	Jonathan Cook	5/10/18
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Rev#	Date	Prepared by	Reviewed By			
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 QAPCO شركة القطر البتروكيماويات QATAR PETROCHEMICAL COMPANY	HSE INSTRUCTION FOR ELECTRICAL ISOLATION/DE-ISOLATION CERTIFICATE		Procedure	:	IN-250-HSE-14
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Revision / Modification History

Rev#	Date	Page	Section	Reason of Revision / Modification
0	01 Feb 2018	All	All	<ul style="list-style-type: none"> ▪ Procedure PR-251-SF-06 & PR-251-SF-07 combined and converted to instruction In-250-HSE-14 as per BT requirements ▪ Modified as per the New Organization structure ▪ Add terms and definitions as per new template ▪ Update reference list ▪ Change form Execution to Lead Executor ▪ Changed the name from “Electrical Isolation/Cancellation” to “Electrical Isolation/De-Isolation” ▪ Change Operation to Permit Issuer ▪ Updated the Electrical Isolation/De-Isolation form as needed ▪ Integrate QAPCO PTW system with QVC PTW after merging

Distribution

Through *intranet (QAPCO Staff)*

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1.0 PURPOSE

This instruction provides the guidelines to fill & complete the Electrical Isolation and De-Isolation Certificate with an explanation to the terms used in that Certificate.

2.0 SCOPE

This instruction covers the isolation and de-isolation of all electrical energy sources that are used inside QAPCO premises with voltage of 50V AC or DC and above in the plants areas.


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3.0 DEFINITIONS & ABBREVIATIONS

#	Abbreviation / Key word	Definition summary
1	QAPCO Areas	<p>QAPCO complex has the following two main areas:</p> <ol style="list-style-type: none"> 1- The area from the main Security gate (Gate-1) to Security Gate-2. 2- The area after Security Gate-2, Gate-3 and Vinyl Gate (G-2) is called the plant area and comprises of the restricted areas (inside the Plant Safety Gates) and non-restricted areas (between Security Gate-2, Gate-3 or Vinyl Gate (G-2) and Plant Safety Gates)
2	Lockout Device	A padlock, chain, hasp, or other lockable devices used to positively secure hazardous energy sources in a safe position.
3	Tag out	A tag which is affixed to the isolation point because a lock or locking device/accessories cannot be secured to the isolation point. A Tag does not positively isolate a system. (e.g. For a Pump motor the lock is fixed to the electrical isolation point however a tag is fixed to push-button start switch)
4	Work permit	It is a written document issued for performing any intervention work on QAPCO assets. It authorizes the holder of the completed document to carry out a specific task at a specific location at a specific time and lists out the potential hazards and the appropriate precautions to be taken for performing the intervention safely.
5	Isolation and de-isolation Requestor	The person who requesting the isolation, he could be the asset owner or the Lead Executor who will perform a task require isolation.
6	Isolation and de-isolation responsible	Competent and Certified electrical staff responsible for Electrical isolation & de-isolation of electrical equipment.
7	Isolation and de-isolation Attestation	Physical confirmation of the electrical isolation and de-isolation
8	HASP	Multi Provision locking device
9	CHSSEO	Chief HSSE Officer
12	MGM	Manufacturing Group Manager
13	TGM	Technical Group Manager
14	HOD	Head of Section


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4.0 REFERENCES DOCUMENTS

S.no	Document ID	Document Title
1	M-250-QSS- 01	HSE-IMS (integrated Management System) Manual
2	PR-QSS-114	Work Permit Procedure
3	IN-250 –HSE-07	HSE Instructions for Cold work Permit
4	IN-250-HSE-08	HSE Instructions for Hot work Permit
5	IN-250-HSE-09	HSE Instructions for Confined space entry
6	PR-QSS-127	Job safety Analysis
7	IN-250-HSE-03	QAPCO 12 Golden Rules at work
8	PR-QSS-110	Incident Reporting and investigation Procedure
9	F-250- HSSE-08	Electrical Isolation Certificate form

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5.0 GENERAL HSE REQUIREMENTS:

When a Cold or Hot work permit stating the requirement to isolate the electrical energy source from any electrically operated device an electrical isolation and de-isolation Certificate (3 copy's) is issued by the plant operations.

However, the electrical isolation and de-isolation Certificate can be used without the Cold or Hot work permit for isolating of an equipment that are required by the plant operations for their specific requirements.

All electrical isolations inside QAPCO premises will be carried out by a Competent and Certified electrical staff.

It is the responsibility of the plant operations to notify all concerned parties about the electrically isolated Assets.

The Isolation and De-isolation certificate can serve as Permit to the Competent and Certified electrical person to carry out the Isolation and De-isolation of equipment's, without having the need for a cold or hot work permit when instructed by the responsible operation staff .

6.0 PROCESS:

6.1 ISOLATION - CERTIFICATE


Part-1

- This part is filled by the requestor, who is asking for isolating the electrical energy sources certificate a specific asset.
- He has to complete part-1 of the certificate and filling in the Asset number, asset description and the cold work permit number if applicable.

Part-2

- Part-2, will be applicable when multi discipline works are requested or needed on the same asset or that piece of equipment, in this case the relevant section shall be marked and the responsible (of concerned department) shall enter the detail of the padlock numbers in the Part –5 of the certificate.
- The requestor shall also specify if electrical power cable disconnection is required.
- Primary lock out is required for electrical isolation, Production Responsible / Requestor shall mark 'no' for lockout in any exceptional case where pad locking facility is not available and alternate measures such as cable disconnection is applied..

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Part-3

- This part is completed by the Competent and Certified electrical person/staff.
- The electrical energy source/feeder details shall be clearly filled in the certificate.

All boxes in this part must be ticked (✓) for YES and (X) for NO

Part-4

- This part is completed by the plant operations personnel by physically starting the motor or electrical drive that is under isolation to ensuring that it does not start.
- Only after physical verification, the plant operations personnel can complete the attestation part.
- If the isolation is related to only one of electrical equipment like (transformers, electrical bus bar or UPS) and operations cannot verify that by physically testing it, the Competent and Certified electrical person/staff is responsible in this case for confirming such an isolation and the plant operations will be signing as only for information.

Part-5

Padlock details


- Plant operations Responsible / Requestor shall fill the padlock details such as concerned section name, work permit No., padlock number, locked by whom and the date.

Note: Whenever any additional padlock is added, padlock details shall be filled by plant operations responsible only in the original copy. If extra space for padlock details is needed an additional permit copy can be used and stapled to the initial permit. The additional padlock keys shall be retained by the concerned functional leaders / technician.

6.1.1 Power Cable/Cables Disconnection and Reconnection

- Cable/Cables Disconnection
 - Page 2 of 2 of the electrical isolation and de-isolation certificate is used for cable(s) disconnection process.
 - A separate cold work permit shall be issued for the cable(s) disconnection job
 - The details of this part are all filled by the Competent and Certified electrical person/staff

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- A clear sketch of the connection diagram/markup has to be completed by the Competent and Certified electrical person/staff to insure the correct reconnection of the cables
- The electrical authority will enter the name and signature after completing the disconnection of the cable/cables.
- Cable/Cables Reconnection
 - Page 2 of 2 of the electrical isolation and de-isolation permit is used for cable(s) Reconnection process.
 - A separate cold work permit shall be issued for the cable Reconnection.
 - The electrical authority will enter the name and signature after completing the reconnection

6.1.2 Validity of the certificate

- The isolation certificate is valid for the duration of the job and is determine by the plant operations personnel.
- In the event of long-term isolation, the certification should be held by the operation. The certificate along with the hard copy should be in custody of the operations in a separate folder. This folder should have document to explain the need for long term isolation.

6.2 DE-ISOLATION - CERTIFICATE

Part-1

- When all the Job related to the ISOLATION are completed, all padlocks of the concerned department have to be removed and this part has to be completed by the concerned functional leader.
- The plant operations have to ensure that, there is no active work permits linked to the electrical isolation before issuing the de-isolation Certificate.


PART-2

- The plant operations or asset owner has to fill this part requesting De-Isolation.
- It is the responsibility of the plant operations or asset owners to ensure that, the electrical drive is in place at the field and to ensure that, the Cable Reconnection part of the permit (page 2 of 2) is completed, before issuing the certificate for de-isolation.

PART-3

- This part is completed by the Competent and Certified electrical person/staff All the parts have to filled in the 'yes' or 'no' boxes completely and no blanks left

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- The electrical energy supply source/feeder details shall be clearly mentioned on the certificate.

PART-4

- This part is completed by the plant operations personnel.
- The operation responsible will confirm the equipment is ready for testing and when successfully completed, he shall sign OFF this part.
- If the electrical De-isolation was carried out on transformer or electrical bus bar or UPS in which operations cannot attest by physically testing then it is solely the Competent and certified electrical person/staff responsibility to attest the de-isolation and the plant operations will be signing as only for information.

7.0 CERTIFICATE DISTRIBUTION

- The Electrical isolation and de-isolation certificate will have Three Copies (White, Pink & Green)
- The original or the first copy (White) and third copy (Green) will remain in the control room.
- The Second Pink copy shall be installed at the feeder that is Isolated.

8.0 FOLLOW UP AND RECORDS

- After De-isolation, the White copy shall remain with Control room, while the Green copy will be retained by the Electrical section.
- The Pink copy from feeder shall be discarded.
- The operations and executing departments have to retain their respective copies after de-isolation of isolation for a period of six months.

9.0 APPENDIX:

- Electrical Isolation and De-isolation Certificate.

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