



# PROCEDURE

## Safe Removal of Contaminated Equipment from Plant Areas

Rev	Prepared	Review	Approved	Date	Description
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## TABLE OF CONTENTS

	<b>PAGE</b>
1.0 INTRODUCTION.....	3
1.1 Purpose.....	3
1.2 Scope.....	3
1.3 Implementation.....	3
1.3.1 Who Has Responsibilities - Training Needed.....	3
1.3.2 Who Else Should Know - Awareness Needed.....	3
1.3.3 For Information Only.....	3
2.0 DEFINITIONS.....	3
3.0 DETAILS.....	4
3.1 Issues.....	4
3.2 Background.....	4
3.3 Requirement.....	4
3.3.1 General.....	4
3.3.2 Residual Contamination.....	5
3.3.3 Transport.....	5
4.0 RELATED DOCUMENTS.....	5
5.0 RECORDS MANAGEMENT.....	5
6.0 REVISION INFORMATION.....	5
7.0 APPENDICES.....	6

## 1.0 INTRODUCTION

### 1.1 Purpose

Describe the methods and procedures to be used for the removal of any equipment from plant areas that is in direct contact with Process and Chemical Materials. The procedure also covers the precautions required to ensure safe handling or inspecting by others.

### 1.2 Scope

This procedure covers the method and requirements for the removal and safe handling of all production equipment.

### 1.3 Implementation

#### 1.3.1 Who Has Responsibilities - Training Needed

- Area Production Coordinator
- Process Team Leader
- Area Maintenance Team Leader
- Area Maintenance Technicians
- Offsite Repairs Coordinator.
- Stores Dispatch Person.

#### 1.3.2 Who Else Should Know - Awareness Needed

- Area Superintendent
- Stores personnel

#### 1.3.3 For Information Only

- For all KNR and contract personnel who are involved with removing and handling production equipment and offsite repair contracts.

## 2.0 DEFINITIONS

JSA	Job Safety Analysis
PPE	Personnel Protective Equipment
Permit	Authorisation to proceed with the task
MSDS	Material Safety Data Sheet
Process Material ID Tag	A yellow tag attached to equipment, with details to inform others of potential hazardous materials
OSR	Off Site Repair

## **3.0 DETAILS**

### **3.1 Issues**

The majority of equipment used in KNR is exposed to some type of process material whether solid, liquid or gas. Some of these materials can pose safety, health or environmental hazards to those who work on this equipment. These risks can occur during handling, transportation and repair.

In most cases only the personnel removing the equipment can identify the process material which may be present in or on the equipment. In order to ensure the correct procedures are followed during all stages of removal, transport and repair the clear identification of these process materials is required.

Failure to identify process materials could also result in a possible breach of Dangerous Goods and Environmental Protection Regulations during transport and subsequent disposal of residues from cleaning.

### **3.2 Background**

Process, Maintenance and Projects personnel dealing with equipment and products which have potential health and safety impacts are aware of those hazards, and suitably protected themselves from the hazards. JSA's are used to ensure adequate PPE and precautions are taken.

Equipment receivers (stores personnel, offsite repair and transport companies etc.) are unaware of these hazards and are therefore unable to take appropriate safeguards to protect themselves and others when performing their tasks such as dismantle.

A systems exists which requires the attaching of a Process Material ID Tag to all equipment classified in the procedure. This tag highlights possible process materials on or in equipment.

**We have a duty of care to ensure the safety of ourselves and others.**

### **3.3 Requirement**

#### **3.3.1 General**

The potential to expose equipment receivers to hazardous chemicals must be considered by the Process and Maintenance Technician when preparing a Permit and associated JSA.

It is the responsibility of both parties to ensure that items are not delivered to others, without first establishing that the equipment represents no unidentified health, safety or environment risk. Where possible the equipment should be flushed and drained whilst still installed. At times however, it may be necessary to partly disassemble and re-flush items at the point of removal, in a bund area, when product can be retained by the equipment eg. Acid retained in non return valves.

In some exceptional instances it may be necessary to contain the equipment in a plastic bag or drum to prevent spillage and deliver it to the KNR Process Wash Bay for further cleaning. In this instance a JSA will be completed by the Process and/or Maintenance Technician and provided to the Crane Driver/Forklift Operator and cleaning personnel so that the correct PPE can be worn. It is the responsibility of the Maintenance Technician and the Team Leader to ensure that adequate written information and verbal communication takes place with the other parties so that the hazards are clearly known and understood.

### **3.3.2 Residual Contamination**

If there are any occasions where equipment genuinely cannot be cleaned to a state where there is no residual contamination or where there is no risk, then the Area Superintendent must be informed and shall sign off on the written safety precautions to be applied. A copy of the precautions and an MSDS must be securely attached to the equipment before it is forwarded to stores for dispatch.

Furthermore a Process Material ID Tag must be attached to the equipment with the MSDS.

Details of the contamination must be reported to the OSR Coordinator.

The OSR Coordinator will ensure the respective OSR companies are informed and have received all relevant documents.

Furthermore the Maintenance team leader must ensure the requirements of 3.3.3 are met.

### **3.3.3 Transport**

The Maintenance Team Leader must consider the requirements for transport of all equipment, particularly any equipment with possible residual contamination.

These requirements may include the installation of blanks, plastic wrapping or special transport containers.

The Maintenance Team Leader must ensure that the requirements are installed prior to shipping and communicated to the OSR Coordinator. In addition, the Team Leader will ensure that the measures taken are sufficient for any possible contamination and will prevent any spillage during transport.

If the above requirements are not met the equipment must not leave site.

## **4.0 RELATED DOCUMENTS**

[KNR-PR-G-0139](#) [Offsite Equipment Repairs](#)

## **5.0 RECORDS MANAGEMENT**

Copies of all OGA Dockets are filed in the Supply Department.

## **6.0 REVISION INFORMATION**

Review of procedure with minor changes

## **7.0 APPENDICES**

Appendix A

Process Material ID Tag

Appendix A: Process Material ID Tag

The image shows a yellow ID tag for Kwinana Nickel Refinery. At the top left is a circular logo with the letters 'WNC'. Below the logo, the text 'KWINANA NICKEL REFINERY' is printed. A central white box contains the heading 'PROCESS MATERIAL' in bold. Below this, another white box contains the heading 'EQUIPMENT HAS BEEN' followed by a table with two columns labeled 'Y' and 'N'. The table rows are: 'FLUSHED', 'HOSED', 'HYDRO BLASTED', 'DISASSEMBLED', and 'OIL DRAINED'. Each row has two empty checkboxes. Below the table is the heading 'PROCESS MATERIAL IS:' followed by three horizontal dotted lines for text entry. At the bottom is the heading 'SIGNED:' followed by a horizontal dotted line for a signature.

	Y	N
FLUSHED	<input type="checkbox"/>	<input type="checkbox"/>
HOSED	<input type="checkbox"/>	<input type="checkbox"/>
HYDRO BLASTED	<input type="checkbox"/>	<input type="checkbox"/>
DISASSEMBLED	<input type="checkbox"/>	<input type="checkbox"/>
OIL DRAINED	<input type="checkbox"/>	<input type="checkbox"/>