
PROCEDURE: Isolation of Services

1. Introduction

The Isolation of Services Permit is used to inform the Campus Facilities Manager (or their delegate) of future and emergency works that may cause disruption and/or direct impact to the Campus supply of services and/or building operations.

Isolations occur in the case of planned impairments as a result of project and maintenance works or when systems are impaired or otherwise taken out of service, completely or in part. Such circumstances are at times unavoidable due to a number of reasons such as a fault, failure or accidental damage of equipment, or renovation or expansion of the areas being protected.

As a result of these system(s) being impaired, the premises or equipment previously protected, can be exposed to a greater loss should an incident occur.

2. Purpose

The purpose of this procedure is to provide direction on the validation and endorsement process for Isolation of Services Permit form which have been submitted by contracted services providers to the University.

3. Definition of Terms - Acronyms

- (AWN) Advance Works Notice
- (CFM) Campus Facilities Manager
- (FC) Facilities Coordinator
- (MSO) Maintenance Services Officer
- (ISTS) Information Strategy and Technology Services
- (UniSA) University of South Australia
- (CE) Controlled Environment (including Research items, equipment i.e. fridges/freezers/cold rooms and incubators).

4. Procedure

This procedure will assist in reducing the impact of such isolations to;

- address life safety,
- University assets,
- Business interruption (continuity).

4.1 Types of Isolations

Isolations occur most often in the case of planned impairments as a result of project and maintenance works. In some cases, the isolation may be required in the event of an unplanned system fault, failure or accidental damage of equipment and the service is shut off, impaired or otherwise taken out of service, completely or in part. As a result, these services could now expose the University to a greater loss should an incident occur.

Such circumstances may affect;

- Communications and data
- Electrical
- Electronic Security
 - Doors
 - Duress
 - Controlled Environment (CE) alarming
- Fire
 - Smoke / Thermal Detector
 - Gas Suppression System
 - Town Mains Supply
 - VESDA
 - FIP/EWIS
 - Sprinkler System
 - Fire Pump / Tank
- Gas
 - Natural
 - Laboratory (specialist)
- Mechanical
- Vertical Transport
- Sewerage
- Water
 - Mains
 - Recycled
 - RO / acidified
- BMS
- CEMS
- Gas Monitoring

4.2 Stakeholder Consultation

The Permit Applicant (Contractor) must investigate the impacts of the impairment and identify the necessary remedial action prior to an application for Isolation of Services Permit being submitted. Further investigation may be required by the Campus Facilities Manager (or delegate) before the isolation can subsequently occur.

4.3 Risk Management

This Procedure and the request to Isolate Services Permit form are designed to guide parties requiring full or partial system isolation through a structured risk assessment process.

Additional systems for risk assessment and analysis may also be necessary to effectively mitigate risk, particularly where higher risk services are involved.

The hierarchy of risk control can be applied to Isolation planning to ensure that all options to reduce likelihood, consequence or both of an Isolation causing damage to existing services or persons are properly considered prior to works commencing.

Hierarchy of Control
Control Test

Elimination	Can the Isolation be avoided completely?
Substitution	Can the location of works be altered to avoid services?
Engineering	Can alternate design be used to reduce the extent of isolations necessary?
Administrative	You must have the required permits
PPE	You must have developed suitable SWMS during Isolation planning.

In addition to the Isolation, the activity, the type, size, location and age of the services are important considerations when planning an Isolation. It is important to recognise that each campus and each set of circumstances represent a different risk exposure and as such each Isolation needs to be properly risk assessed and the relevant controls defined.

Different controls are possible for both likelihood and consequence and the Isolation plan should seek first to reduce:

- The likelihood of damaging existing infrastructure by ensuring the best data possible is obtained and verified on site.
- Consultation with the relevant stakeholders should verify whether other works recently completed or works in progress have installed additional services to those shown on obtained data.
- Location where the Isolation is being undertaken, adjacent works and whether this occurs in a live environment, are all items to be considered in the Isolation risk assessment.

The combination of these factors will assist to define the skills required on site during the Isolation to ensure that existing assets are not damaged, and workers and the campus community remaining safe.

4.4 Length of Isolation

The duration of the Isolation must be carefully considered as this has a significant impact on University operations and the campus community.

There are three (3) types of isolations that can be conducted:

- **Daily Isolation**
An isolation that will be complete and reinstated within a single day.

- **Extended Isolation - With Daily Reinstatement**
This type of isolation refers to an isolation that will occur over a number of consecutive days for a period of under 12hrs. In essence the service will be reinstated after business hours.
- **Extended Isolation - With No Daily Reinstatement**
This type of isolation can only be applied for if it is absolutely necessary. This type of isolation involves an isolation for a period of 12hrs or more and will remain impaired/isolated after hours (i.e. overnight). Extended isolations will only be allowed under certain circumstances.

4.5 Notifications

Should the isolation affect Fire Systems the Contract Supervisor must notify SAMFS (if required) and complete and provide to FM Assist the Fire Systems Impairment Form. Should the impairment exceed 12 hours, FM Assist will notify UniSA Insurance based on the information provided to them.

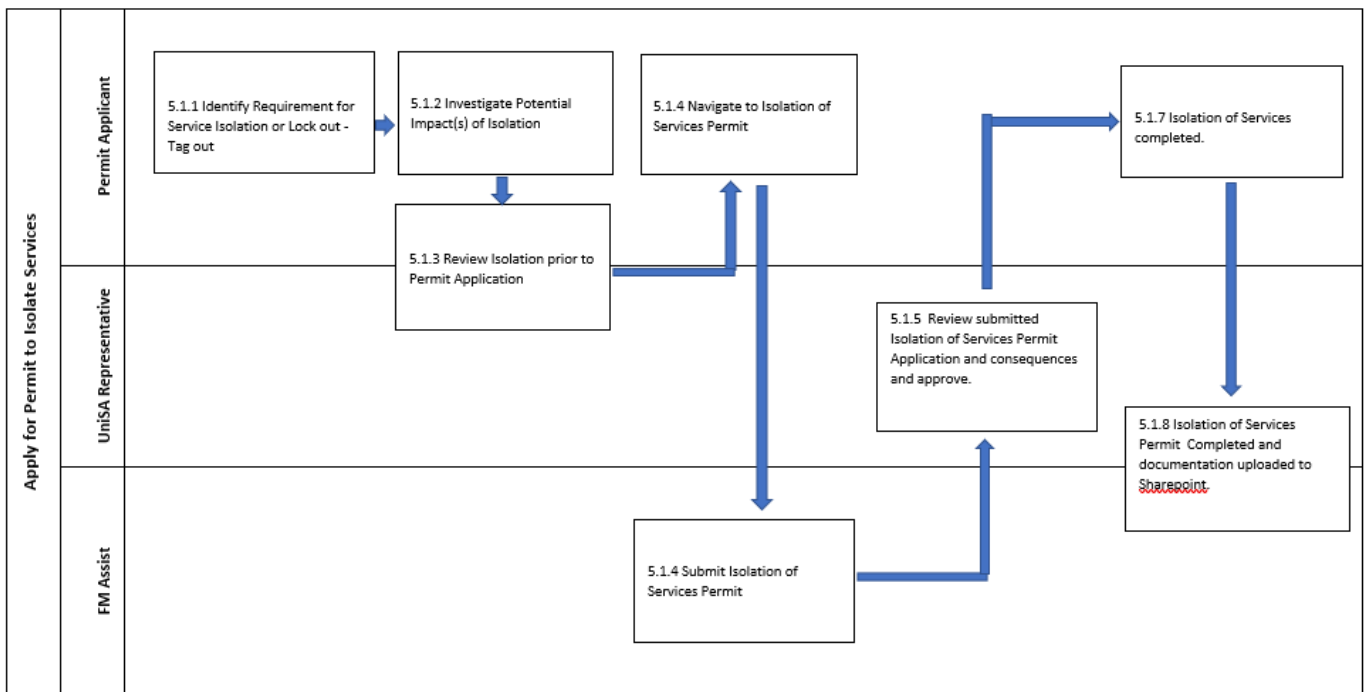
4.6 Conditions

- An Isolation of Services Permit regardless of the type of isolation must be submitted a minimum of 5 working days prior to the request to issue an [AWN](#). The [Draft AWN Template](#) must be submitted 96 hours prior to the proposed commencement of works.
- Entire building isolations are not allowed when the building is still operational for staff and students. At a minimum there must be 25% of each building with no isolation.
- Any charges incurred due to false alarms that result in SAMFS relating to the works/activity being conducted will be the responsibility of the Contractor.
- Under no circumstances are detectors to be taped or the use of incorrect covers (i.e. gloves, electrical tape) over detectors.
- UniSA reserves the right to implement risk mitigation, disciplinary and loss recovery measures for breaches of this procedure.

5. Application to Isolate Services

It is imperative that all services are identified prior to the commencement of any works, and interruptions be kept to a minimum. A permit is required when isolating any energy source (electricity), gas, water, groundwater, mechanical, air conditioning, data or telecommunications services from the source of supply, prior to servicing, repair or routine maintenance and emergency works. An application for an **Isolation of Services Permit** shall be submitted to FM Assist 5 working days prior to the issue of an AWN. (The **Draft AWN Template** must be submitted 96 hours prior to the proposed commencement of works.)

Workflow Diagram



5.1 Process

5.1.1 Identify Requirement for Service Isolation or Lock Out -Tag Out (Contractor)

Accountability: Contractor Supervisor	<ul style="list-style-type: none"> Encounter a situation where isolation is needed. Lock-out, tag-out procedures must be followed during isolations, and referenced in SWMS.
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5.1.2 Investigate Potential Impact(s) of Isolation (Contractor)

Accountability: Contractor Supervisor	<ul style="list-style-type: none"> Undertake all necessary investigations. Determine suitable controls/hours of works to minimise impact and maintain operations. Provide a clear plan, or mark-up of location of the isolation. Provide details of the works.
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5.1.3 Review Isolation Prior to Application (*Permit Applicant and UniSA Representative*)

<p>Accountability Contractor Supervisor in conjunction with Campus Facilities Manager or delegate, Project Manager/Officer or MSO</p>	<ul style="list-style-type: none"> • Validation that Isolation is required. • Contractor to Complete Isolation of Services permit.
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5.1.4 Submit Isolation of Services Permit (*Contractor*)

<p>Accountability Contractor Supervisor.</p>	<ul style="list-style-type: none"> • Navigate to Isolation of Services Permit. Complete all sections of the "Isolation of Services Permit" ensuring the service to be isolated is specified. • All specified supporting documentation must be attached • Submit the "Isolation of Services Permit" application form to FM Assist.
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5.1.5 Review submitted Isolation of Services Permit and consequences to affected Stakeholders (*UniSA Representative*)

<p>Accountability: CFM or delegate (FC)</p>	<ul style="list-style-type: none"> • Content of the Isolation of Services Permit is reviewed. • Validate Contractor has the appropriate licence to perform the works to be undertaken. • Determine specific space (Building, Floor, Room) the isolation will impact. • Determine the function of the space to be affected: <ul style="list-style-type: none"> ➤ Laboratory ➤ Research ➤ Teaching ➤ Office ➤ Plant • Determine if the isolation will impact: <ul style="list-style-type: none"> ➤ Life safety infrastructure (e.g. communications, electrical, fire, alarming, oxygen depletion, controlled environments) ➤ Critical equipment (e.g. fridges, freezer, incubators, constant temperature rooms) ➤ Business interruption i.e. can teaching or staff be temporarily relocated?
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	<ul style="list-style-type: none"> ➤ Access (electronic security, vertical transport, auto doors) • Contact Stakeholders to assist in assessing the impact and potential consequences to: <ul style="list-style-type: none"> ➤ Infrastructure = MSO ➤ Systems = ISTS, Security, MSO ➤ Laboratory Equipment and Activities = School Managers / Lab Technicians / FM Assist ➤ Research = Technical Services Manager / Operations Managers ➤ Teaching = FM Assist, Timetabler's
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5.1.6 Determine Isolation Conditions & Approve Permit (*UniSA Representative*)

<p>Accountability: CFM or delegate (FC)</p>	<ul style="list-style-type: none"> • If deficiencies or further clarification is required contact Contractor Supervisor. • If determined the isolation does not pose an inherent risk the Isolation of Services Permit is approved. • Contractor is notified that isolation can occur as per the Isolation of Services Permit form. • Notifies Campus Community via AWN. (Refer Advance Works Notice procedure FM-PROC-094.)
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5.1.7 Isolation of Services - Complete (*Contractor*)

<p>Accountability: Contractor Supervisor</p>	<ul style="list-style-type: none"> • Contractor Completes Section 10 of the Isolation of Services Permit confirming works have been completed.
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5.1.8 Isolation of Services - Completed (*UniSA Representative*)

<p>Accountability: CFM or delegate (FC)</p>	<ul style="list-style-type: none"> • Isolation of Services Permit and relevant documentation is uploaded to Sharepoint - Permit To Work.
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6. References

- FM-PROC-094 Advance Works Notice
- AWN - Templates
- Construction Start Up Check List
- Contractor Induction and Working Safely at UniSA
- WHS Health Safety and Injury Management
- Permit to Work
- Working at Heights - Roof Access Permit
- WHS36 Confined Space
- Hot Works
- Fire Systems Impairment Permit