DECOMMISSIONING, DECONTAMINATION AND DEMOLITION OF PLANT AND ASSETS PROCEDURE

***SECTION 3*** *Framework for Health and Safety Management*

PURPOSE

***PROCEDURE***

This procedure describes requirements to ensure safety and health are protected when decommissioning and removing plant and equipment or when remediating land.

The scope of this procedure extends from complete decommissioning, decontamination, removal and remediation of a site and includes the removal of a significant part of an operating plant from service.

It does not refer to the decommissioning of Asbestos Cement (AC) pipe. For further detail on decommissioning and remediation of AC Pipe, refer to the Water New Zealand National Asbestos Cement Pressure Pipe Manual Volume 1 and the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.

GENERAL REQUIREMENTS

### RESPONSIBLE PERSON

A responsible person shall be nominated to manage any significant decommissioning, decontamination and removal projects and/or the remediation of land.

The person shall be experienced in such work, have a thorough understanding of local regulatory requirements controlling such operations and be available for supervisory tasks and provision of advice and information whenever required.

### HEALTH AND SAFETY RISK ASSESSMENT

Prior to any work starting, the organisation shall ensure that a risk assessment is completed that is reflective of the scope and complexity of the decommissioning, decontamination, removal and/or remediation work. The risk assessment team shall include people with sufficient knowledge of the plant, equipment and historical use of the land as required.

The risk assessment shall contain the phases detailed below:

#### Health and Safety Engineering Assessments

The assessment shall be conducted to:

Assess the structural integrity of the plant and structure and to understand the key design characteristics of the structure. This element of the risk assessment should be conducted with input by suitably qualified and knowledgeable engineers.

Assess the structural integrity of the building during its removal against the contractor’s proposed demolition and removal method. This element of the assessment could be conducted with input by the contractor’s consulting engineer.

#### Health and Safety Electrical Assessments

The assessment shall be conducted to:

Identify and mark out the power supply to, and the distribution of power in the work area, in order to assess the isolation requirements and to plan for the relocation or protection of the supply to other areas of plant or equipment. This element of the risk assessment shall include input from qualified electrical engineers, with sufficient knowledge of the electrical supply, including any modifications and additions.

#### Health and Safety Fire Assessments

The assessment shall be conducted to understand the fire prevention and control measures required in the structure or building to be removed. Temporary changes to fire protection systems might be required. Where appropriate, input and advice may be sought by fire prevention specialist or services.

#### Health and Safety Asbestos Assessments

The assessment shall be conducted to establish the type (fibre, sheet, gasket, etc.) and distribution of asbestos containing materials. The assessment shall be completed with reference to the organisations asbestos register. The assessment may provide information that should be added to the asbestos register.

Asbestos assessments must be adequate for the purposes of demolition. In some instances additional sampling might be required to supplement the existing documentation. Any asbestos sampling, testing and removal shall be completed by suitable qualified and licenced contractors.

For information on managing Health and Safety aspects of Asbestos Cement (AC) Pipe, refer to the Water New Zealand National Asbestos Cement Pressure Pipe Manual Volume 1 and the BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil.

#### General Health and Safety Risk Assessment

The assessment shall address the impact of the work on surrounding working areas and activities. This will provide assurance that all hazards are identified and understood, eliminated where practicable or properly controlled.

All outputs and records from risk assessments shall be retained and made available to contractors or other workers. Outputs from risk assessments shall be used to develop safe work methodologies that are documented through JSA or similar operational risk control.

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STATUTORY APPROVALS

Prior to commencing work, approvals shall be obtained in relation to all such activities (e.g. Demolition Permit, Development Approval, permits for scheduled/uncontrolled waste removal and disposal). Typical bodies to be consulted or advised could include:

 Local/Regional Councils

 WorkSafe New Zealand

 Telecommunications providers

 Electricity provider

 Water provider

 Gas provider

 Sewer/trades waste/storm water provider

 Traffic authorities (unusual traffic movements)

MANAGEMENT OF WORK

The work shall be overseen and supervised by a person appointed to control the work.

### GENERAL RISK CONTROL REQUIREMENTS

Access to these work areas shall be controlled and restricted. This may require security fencing, signage and communication with effected workgroups and/or the public.

Any redundant plant or equipment not inside the fenced area shall be clearly labelled to differentiate between working and redundant equipment. Such equipment shall be secured to prevent accidental use and to prevent it from becoming a hazard to any other operations.

Workers conducting the specific work (for example working at heights) shall be adequately trained and certified to operate equipment.

Appropriate and task specific personal protective equipment shall be used.

Waste generated by the decommissioning shall be managed in accordance with local and statutory disposal and transportation requirements.

Emergency plans shall be prepared to cover any operation during commissioning not routinely conducted on site (e.g. explosive demolition, heavy equipment operation, introduction of new or highly hazardous materials etc.).

Equipment and energy sources shall be isolated and physically locked from re-operation or re-energising prior to decommissioning work starting on adjacent or interconnected plant or equipment.

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### SPECIFIC DEMOLITION RISK CONTROL REQUIREMENTS

***PROCEDURE***

WorkSafe New Zealand have developed detailed and specific best practice guidelines for demolition. All demolition work methods developed by contractors shall be in accordance with the requirements of these best practice guidelines. The guidelines can be accessed via the link below:

[*http://www.worksafe.govt.nz/worksafe/information-guidance/all-*](http://www.worksafe.govt.nz/worksafe/information-guidance/all-guidance-items/best-practice-guidelines-for-demolition-in-new-zealand/methods-of-demolition)[*guidance-items/best-practice-guidelines-for-demolition-in-new-*](http://www.worksafe.govt.nz/worksafe/information-guidance/all-guidance-items/best-practice-guidelines-for-demolition-in-new-zealand/methods-of-demolition)[*zealand/methods-of-demolition*](http://www.worksafe.govt.nz/worksafe/information-guidance/all-guidance-items/best-practice-guidelines-for-demolition-in-new-zealand/methods-of-demolition)

RECORD KEEPING

Records of risk assessments, contractor work methods.

TRAINING REQUIREMENTS

Workers shall be trained to conduct specific tasks associated with decommissioning and demolition of existing plant or equipment, this may include, but is not limited to the following NZQA unit standards.

 15757: Employ fall-arrest systems on building and construction sites

 20645: Describe the requirements of the HSNO Act 1996 relevant to approved handlers

 9184: Erect Non- Notifiable Pre-Fabricated Scaffolding.

### RECORDS OF TRAINING

Contractors will be required to provide records of required training and make these available during inspections and audits.

REFERENCES

***SECTION 3*** *Framework for Health and Safety Management*

### WATER NEW ZEALAND PROCEDURES & GUIDELINES:

***PROCEDURE***

#### Health and Safety Procedures:

 Contractor Health and Safety Management

 Health and Safety in Design

 Hazard Identification, Risk Assessment and Control

 Job Safety Analysis

 Asbestos Management

 Water New Zealand National Asbestos Cement Pressure Pipe Manual Volume 1

 Health and Safety Training Program

 Site Emergency Response Plans

### LEGISLATION, REGULATION AND STANDARDS

 Health and Safety at Work Act 2015

 Health and Safety in Employment Regulations

 Building Act 2004

 Health and Safety in Employment Act 1992

 Resource Management Act 1991

 AS 2601- 1991 The Demolition of Structures

### OTHER GUIDELINES:

 BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soil