Watts & Hughes Construction

Waikato/Bay of Plenty Ltd

Environmental Control Plan

Environmental Control Plan

In accordance with Watts & Hughes Construction Waikato Bay of Plenty Limited. corporate strategies the Company has an Environment Control Plan which is as follows;

Management System

The project environment control plan management system comprises of:

Introduction

This document will comprehensively detail Watts & Hughes Construction Waikato Bay of Plenty Limited Environmental Management Plan. It is therefore, designed to provide a clear understanding of the procedures and responsibilities of both Watts & Hughes and its subcontractors to ensure effective management of the environment on all projects.

Objectives

The primary objective of this plan is to minimize the potential for damage to the environment in our operations by adhering to our Company Environmental Policy.

Actions

Ensure contractor / sub contractor compliance to the following environmental controls by familiarization and training to work method statements, checklists, inspection and test plans and periodic audits.

Responsible Personnel

Individual Sites will have a policy stating which personnel will have responsibility and authority for environmental management issues pertaining to individual sites. Contractor/Subcontractors must also provide a nominated representative for dealing with environmental issues in conjunction with the stated Environmental Control Policy.

Procedures and Responsibility

The following details the procedures and responsibilities of Watts & Hughes in relation to the management of environment controls for the projects.

Pre Construction Works Generally

Watts & Hughes to undertake risk assessment on environmental issues relating to completion of the construction works for the project at time of Tender (Estimator) during planning of project (P.M). Watts & Hughes to obtain the necessary control approvals and implement these conditions in pre construction planning of early works (P.M. / S.M.).

At the formal contract hand over from estimating to project construction staff, an item on the agenda will provide for Environmental Planning / Management which will include discussion on site specific issues and responsibilities for implementation of E.M.P and its ongoing maintenance during construction.

This will address all statutory requirements, permits, etc, specific training requirements and sourcing of expert advice etc.

Construction Works Generally

Watts & Hughes to ensure all Contractors / Subcontractors carry out risk assessment on environmental issues relating to their activities.

Watts & Hughes to ensure trees indicated for protection / retention are so treated.

Watts &Hughes to ensure sediment control devices are constructed as specified before commencement of the early works.

Watts & Hughes to arrange noise measurement of all noisy equipment.

Watts & Hughes to ensure contractors / subcontractors minimize dust generation from their activities. Direction must be given to Contractor / subcontractors to wet down areas if it is felt that dust generation is excessive. This is to be done in such a way as to prevent discharge of water being used for dampening, into stormwater system or natural bodies of water.

Emergency Procedures

Environmental Emergency contact numbers will be on the Emergency Response Procedures on each individual site.

In the event of a potential or actual environment emergency Watts & Hughes will take control over the site and institute emergency procedures as detailed in individual site plans.

Spill Response Plan posted on site and referenced during site inductions.

Spill response team formed and trained on site.

Meetings and Reviews

Will be held on a regular basis with all contractors / subcontractors and Watts & Hughes staff as ongoing management of the environment on each site. (Specific topic in weekly site meetings).

Auditing of the Plan

To ensure Watts & Hughes are carrying out its obligation in regards to this management plan a formal internal audit will be implemented (as part of Health and Safety Audit) conducted Bi-weekly. Incidents logged in Environmental Project Folder will be reviewed by P.M. at completion of project and distributed to Construction Director, for assessment of trends, and corrective company wide initiatives.

Management Issues

For each trade or contractor / subcontractor in which there are inherent risks to the environment, formalized risk assessments will be carried out using the risk management system. This will aim to identify all potential environmental risks associated with the works and develop appropriate management actions to minimize or control the identified works.

Contractor / subcontractor will be required to examine their work methods and carry out environmental risk assessment before starting on site.

Appropriate management action will need to be developed to minimize any risks identified with the risk management system. Watts & Hughes will review the contractors / subcontractors risk assessments before work begins on site.

All risk assessments and related management action developed will be filed in the environmental file pertaining to each site.

Typical Risk Assessment Procedure

Risk Assessment is a job planning tool that improves environment, health and safety, productivity quality and site communications. Complete IT prior to beginning your site activities. Be sure to involve Employees in the process – they know the hazards and required controls. Update the assessments during Toolbox meetings.

Steps in the Task Analysis process:

1. Examine your site activities

   Define the specific operations you are conducting on a particular site. Produce E.M.P. Risk Assessment Form.

2. Divide the activity into simple tasks

   There are generally between five and 15 tasks. Include: delivery of materials to site, shifting materials on site, set-up and use of plant, employee access to work areas, other employees or the public around you, and the type of work being done.

3. Identify and access the environmental risks for each task

   Use the potential risk section of significant risk and assign class of risk (degree of affected area).

4. Identify Controls

   Assign the hazards and controls on the form. Use the control hierarchy (eliminate, isolate, minimize)

5. Implement the controls

   Assign and communicate responsibilities, train employees, take action.

6. Monitor the effectiveness and execution of the controls

   Ensure your plan and the controls are in place and are effective in protecting Employees from harm.

Main Areas of Consideration for Risk Analysis:

Example:

Noise Control

Objective:

Depending on the location and particular requirements of a Project in relation to its surroundings.

To minimize the generation of noise from construction activities occurring on site and its impact on surrounding residents, businesses and workers.

Construction hours:

Low noise between	7:00am - 8:00am & after 6:00pm Monday to Friday
	7:00am - 9:00am & after 5:00pm Saturday & Sundays

Loud noise between 8:00am - 6.00pm Monday to Friday
9:00am- 5:00pm Saturday & Sundays

Construction Noise

All contractors will be requested to use silenced equipment where applicable.

Personnel safety measures shall be implemented wherever noise exceeds 85dB.

No construction works shall commence unless the contractor / subcontractor has submitted to Watts & Hughes a schedule of demolition / excavation equipment which describes the equipment types to be used, and any measures required to ensure the noise levels are acceptable (such as screens or mufflers).

Risk Assessment - Environment Class one

Noise generated during construction activities which affects adjoining properties.

Environmental Class two

Noise generated during construction, which affects overall site operations.

Management Actions

Alternative equipment considered.
Ensure equipment silencers are used where ever possible.
Work method statement to nominate types of machinery planned to be used.

Performance Measures

Complaints received from adjoining properties or from statutory authorities.

Hearing test results company wide.

Dust Control

Objective:

Monitor suspended particulates and dust deposition and implement water sprinkling and other appropriate measures to suppress dust and other suspended particulates, to control air quality, in accordance with environment protection authority and risk management requirements.
All sprinkled water is to be retained on site and must not enter the stormwater system.

Risk Assessment- environment class one

Dust generated from construction activities and the site affecting adjoining properties.

Environment class two

Dust generated on the construction site affecting site operations.

Management Actions

The contractor / subcontractor generating the dust shall monitor construction level of dust during its activities, and use hoses to damp the dust as required.

Performance Measures

No complaints received from the adjoining properties or from statutory authorities.

Sediment and Erosion Control

Objective:

Plan and carry out work to avoid contamination and sedimentation. Controls including catchment drains and silt curtains shall be provided during construction to prevent sediment entering and contaminating the storm water system and water ways.

Erosion & Sediment control

- All sediment laden water to be contained on site.
- Use of silt curtains on storm water outlets.
- Work method statements to detail management of storm water where applicable.
- All on site sediment and erosion control are to be installed in accordance with ARC Technical Publication 90: Guidelines for Land Distributing Activities in Auckland Region.

Risk Assessment – Environmental class one

Release of sediment laden water from the construction site to adjoining property, waterways and stormwater system.

Environment Class One

Sediment laden runoff leaving the construction site without passing through control structures.

Environment Class Two

Site cut off drains eroding and increasing site water sediment loads.

Management actions

Silt fences located at low gradients on perimeter of site to prevent run off
All on site stormwater drains to be sealed.

Stormwater ponding on site to be filtered and discharged through sewer system.

Silt stop curtains are to be in place on storm water outlets.

A maintenance checklist shall be prepared with all structure and control measures checked regularly for their designated performance where applicable.

Failure of systems in severe incidences of rainfall to be reported to A.R.C.

Performance Measures

All control structures constructed and operational prior to major works commencing.

Check lists are completed with all identified issues actioned.

Chemical & Fuel management

Objective:

To prevent any contamination of site works areas and adjoining property including drains by chemical or fuels used on the construction site.

Major spill affects whole site and/or surrounding area.

Minor spills are contained within areas of site.

Risk assessment Class one

Paint – spills and washings escaping into storm water systems.

Major leak / spill from site storage containers of fuel during bulk tank refuelling that breaches the site boundary.

Environmental class three

Leakage / spill on site resulting from refuelling machinery.

Management Actions

No other general construction material will be allowed to be stored in the designated refuelling area.

A supply of sand and or absorbent material will be stored on site. A minimum of 5 bags for use on minor spills.

The operation and correct use of the storage area and refuelling area will be explained to plant operators.

Responsibility for the operation and maintenance of the chemical and fuel storage area will be determined prior to commencement of site operations.

All fuel to be stored in bunded containers that are craneable.
Regular checks to be carried out on all taps and hoses on fuel tanks and bunds.

Painting contractors are to be instructed as to where they are able to wash and clean painting equipment.

A bunding, siphoning system to be put in place to accommodate this trade.

Bunding or heavy polythene to put down for the opening and mixing of any paints.

Performance Measure

No chemical or fuel stored outside designated area.

Bags of sand or absorbent material on site at all time.

Checklist carried out on a regular basis.

Disposal of contaminants and refuse.

Concrete Waste

Objective:

To prevent concrete or any alkaline product waste accumulation on site and the potential contamination of sediment in waterways.

Risk assessment Class one

Concrete waste, even diluted in water to milky consistency enters the storm water system.

Concrete waste is unnecessarily accumulated on site with some potential for entry into the storm water system.

Management Action

Concrete pumped through a static line to be washed out into a concrete truck to be returned to supplier.

Spillage can be left to dry, broken up and removed from site only after being contained in plastic. Responsibility is Watts & Hughes to ensure the concrete truck drivers are aware of the policy pertaining to that site. Site manager to review situation regularly.

All offsite drains nearby concrete pumping and discharge are to be blocked off during such operations.

All excess concrete is to be returned to suppliers.

Hand mix concrete/plastic etc. to be located in low gradient.

Areas of the site or bunds placed around such operations.

Performance Measures

Facility constructed and operating prior to any concrete works commencing on site.

Facility used regularly.

Maintenance checklist prepared and signed of by responsible party.

Waste Management

If an accidental discharge to the stormwater system does occur, this slurry or contaminated water must be removed e.g. by sucker truck, submersible pump or wet-vac. The ARC should also be notified as per the Spill Response Plan.

Environmental Assets

When asphalting paved areas on site works, make sure all stormwater drains are blocked until asphalt has cured.

Subcontractor to remove from site or secure all residue asphalt in water containers.

Some consideration should be given to the usage of lime or lime based products on site.