



HAMMERHEAD CRANE DECONSTRUCTION
AT GARDEN ISLAND

Environmental Management Plan

Prepared by
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for
Brookfield Johnson Controls

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1 PURPOSE

The purpose of this Environmental Management Plan (EMP) is to provide a structured and integrated approach to all of the elements of environmental planning, as well as ensuring alignment between strategic, operational, and personal performance planning.

The EMP outlines the method by which Liberty Industrial shall manage the key aspects of environmental aspects for this project.

Note: for Lead Paint Management, refer to Hazardous Paint Management plan under separate cover.

2 SCOPE

This EMP shall apply to all Liberty Industrial workers, and to any sub-contractor (s) that are approved to undertake or perform work on Liberty Industrial projects.

This EMP has been developed using the following standards and codes of practice:

- Liberty Industrial Management System;
- AS/NZS ISO 9001:1994: Quality systems - Model for quality assurance in production, installation and servicing;
- AS/NZS 4801 - 2001: Occupational Health and Safety Management Systems - Specification with Guidance for use;
- AS/NZS 4804 - 2001: Occupational Health and Safety Management Systems - General guidelines on principles, systems and supporting techniques;
- AS/NZS 4581 - 1999: Management System Integration – Guidance to Business, Government and Community Organisations;
- AS 1885.1 – 1990: Workplace injury and disease recording standard;
- Industry Guidelines for the Workplace Relations and Occupational Health and Safety Components of the National Code of Practice for the Construction Industry;
- Legislation administered by the NSW Department of Environment and Heritage (OEH);
- Environmental Protection Authority publication Environmental Guidelines for Major Construction Sites (1996)
- NSW Environmental Protection Administration Act 1991;
- NSW Environmental Protection Operations Act 1997;
- NSW Contaminated Land Management Act 1997;
- NSW Avoidance and Resource Recovery Act 2001;
- NSW Work Health and Safety Act;

- NSW Work Health and Safety Regulations 2011;
- NSW Workplace Injury Management and Workers Compensation Act 1998
- WorkSafe Australia National Codes of Practice;
- Industry Guidelines for the Workplace Relations and Occupational Health and Safety Components of the National Code of Practice for the Construction Industry;
- How to Safely Remove Asbestos (Model CoP)
- AS/NZ 2601 – The Deconstruction of Structures;

3 INTRODUCTION

The purpose of this Environmental Management Plan (EMP) is to provide the necessary framework to enable the project to be completed efficiently and with minimal environmental impact in accordance with the environmental objectives for this project.

It is the policy of Liberty Industrial (LI) to ensure that the organisation achieves a high standard of care to minimise the impact on the environment, our immediate work sites, and the local community.

To meet these objectives, a systematic and planned approach for the management of environmental issues will be implemented on every project.

This EMP is designed to provide the management with strategies to effectively manage all significant environmental risks during the deconstruction. The intention of the plan is to ensure that all activities that have a potential to impact the environment have been identified and assessed and that control measures have been put in place that are acceptable to New South Wales Environmental Protection Authority and comply with the expectation of the New South Wales Government.

This EMP has been written utilising the Liberty Industrial Management System, and recognises the responsibilities to meet the relevant statutory specifications, standards and client requirements.

The Liberty Industrial Management System is an Integrated Management System. This means that the system is designed to meet the requirements of Workplace Health and Safety, Environmental Management, Human Resources/Industrial Relations and Quality.

4 POLICY PLANNING AND COMMITMENT

Liberty Industrial's aim is to achieve a high standard of care and minimise our impact on the natural environment in all activities in which we are engaged. This is dependent on the commitment of all workers within the organization, and on the project.

4.1 POLICY

Liberty Industrial will:

- Conduct its operations in compliance with all relevant environmental regulations, licences and legislation as a minimum condition;
- Identify, monitor and manage environmental risks arising from its undertakings;
- Seek continuous improvement in environmental performance, operational processes, waste management and use of resources by:
- Monitoring and improving our deconstruction methods to minimise environmental impact;
- Analysing and continuously improving recycling rates;
- Funding post graduate studies in waste minimisation;
- Provide adequate training and awareness for all workers and sub-contractors on environmental issues;
- Communicate and consult regularly with our worker's about our policy and individuals responsibilities;
- Communicate with our Clients, suppliers, and sub-contractors, community and external agencies about our environmental performance;
- Establish and review environmental objectives and targets;
- Develop, implement and maintain a Management System based on the elements of ISO 14001:1996.

4.2 PLANNING

A preliminary list of project specific environmental issues is identified in this document, probability stated and management strategies to mitigate against an environmental incident.

4.3 COMMITMENT

Liberty Industrial's commitment to the environmental aspects of the project is:

- To conduct the works in accordance with the expectations of the Client, and in adherence to regulations and our own plan;
- To monitor potential environmental issues on a daily basis, as part of our hazard and risk management strategies;
- To ensure all our workers and subcontractors are aware of our standards and adhere to our requirements; and
- To achieve a zero environmental incident target;

Ref:

5 PERSONNEL ROLES, RESPONSIBILITIES AND TRAINING

5.1 RESPONSIBILITIES

At various levels with the organization, certain positions hold important responsibilities for general environmental activities.

Project Director	-	Establish overall direction;
All Managers	-	Monitor overall environmental management system performance;
	-	Assure compliance with applicable legal requirements and other requirements to which the organization subscribes;
	-	Promote continual improvement;
Project Manager	-	Total management of all operations, employees and subcontractors;
	-	Ensure compliance with all environmental requirements outlined in the EMP;
	-	Liaise with the client in relation to environmental matters;
	-	Ensuring that all environmental protection equipment is provided and maintained;
	-	Review environmental reports and inspections and initiate corrective action;
Environmental Officer-		Conduct baseline environmental investigations;
	-	Review this Environmental Management Plan (EMP);
	-	Provide on-site advice in relation to the management of environmental issues;
	-	Conduct environmental incident investigations;
	-	Prepare environmental monitoring reports;
All workers	-	Conform to environmental management system requirements;

All workers on the project have a responsibility for ensuring the environment isn't compromised and to manage and report any environmental issues.

Ref:

FRM-031 Incident Report

6 TRAINING

Management will ensure that all workers on the project will have the necessary knowledge, awareness and skills to fulfill their environmental responsibilities. This will be done through Liberty Industrial inductions specific for the Garden Island Site, and any required specific awareness training, either prior to commencement of the project, or during daily team meetings.

7 PROTECTION OF THE ENVIRONMENT

7.1 DEFINITIONS

- ALARP – Mitigate risk to “As Low As Reasonably Practical”
- ‘Environment’ means all components of the earth, including:
 - Land, air and water;
 - Any layer of the atmosphere;
 - Flora and fauna;
 - Any organic or inorganic matter
 - And any living organism including humans;
 - Human made or modified structures and areas;
 - The aesthetic characteristics of the components of the earth, including appearance, sound, odour, taste and texture; and
 - Ecosystems with any combination of the above;
- ‘Environmental Aspect’ means the interaction, relationship or impact of an operation or activity with the Environment including, for example:
 - Impacts of operations or activities on items of heritage or endangered species; and operations or activities causing Pollution or Contamination;
- “Environmental Law” means any statute or common law:
 - Relating to the storage, handling or transportation of waste, dangerous goods or hazardous material relating to Work Health and Safety; or which has as one of its purposes or effects the protection of the Environment;
- “Environmental Notice” means any direction, order, demand, license or other requirement from a Government Agency to take action or refrain from taking any action in respect of the Site or the Works in connection with any Environmental Law;
- “Site” means a project site or work area where Liberty Industrial is undertaking activities on behalf of a client.

8 ENVIRONMENTAL OBLIGATIONS

Liberty Industrial will:

- Comply with all Environmental Laws including obtaining all necessary permits, authorisations, license and approvals required by any government agency for the lawful use of the site and the carrying out of contracted work;
- Not contaminate or cause any pollution on or from the site or work conducted;
- Not use, keep or handle on the site any dangerous goods or hazardous material except as may be required to carry out contracted work;
- Not generate or dispose of any hazardous waste on the site;
- Operate in a proper and efficient manner and maintain in good working order:
- All industrial plant and equipment used in connection with carrying out contracted work and all pollution control equipment required by an Environmental Law, to be installed and operated in connection with client or principal occupation and use of the site;
- Provide to a client or principal on demand any information held or controlled by Liberty Industrial relating to any:
 - Contamination; or
 - Environmental Aspect, affecting the site at any time.
- Allow a client or principal and its workers, agents and consultants access to the site to carry out environmental audits, assessments and investigations of the site and provide to the client or principal, from time to time, all information about the Environmental Aspects of the design and construction activities carried out on the site as may be reasonably requested by client or principal;
- Promptly comply with any direction from the client or principal to implement any recommendation of an environmental audit, assessment, investigation or report in respect of the site and/or undertaking. (whether or not such recommendation is required in order to comply with an Environmental Law);
- Promptly notify the client, principal or government agency in the event that:
- It becomes aware, or as soon as a complaint is made, of a breach or alleged breach of an Environmental Law in respect of the site and/or any activity carried out on the site;
- An Environmental Notice is served on the site;
- The site becomes contaminated in any way;
- Any pollution is emitted or discharged on or from the site;
- We are in breach of any obligations under the contract;
- Do whatever is necessary or desirable and as may be required by a client or principal;

- Remediate any contamination of the site;
- Clean up, manage or abate any pollution occurring on and/or from the site;
- Remedy any breach of an Environmental Law that occurs on or affects the site as soon as it occurs (including by restoring the site to a state as close as practicable to the state it was in prior to that alleged breach);
- Comply with every Environmental Notice relating to the site or issued in consequence of contracted work;
- Remedy any alleged breach of this document;

Measures proposed to reduce adverse impact of undertakings on the environment are:

- Ensure all services are connected in the correct manner to site , toilets and storage compounds and that rubbish disposal bins are available;
- Vehicle access is to be restricted;
- Enclosure or delineation the site for safety;
- Protection of existing vegetation;
- Dust control using existing infrastructure an dust contained to Level “A”;
- Control of discharges from and within the site;
- Control erosion on the site by levelling and benching.

9 PROJECT CONSIDERATIONS

9.1 PRELIMINARY ENVIRONMENTAL ASSESSMENT

The following is intended only to be an initial assessment of potential environmental hazards. A comprehensive risk assessment will be conducted on site, in consultation with all relevant personnel.

Description of activity	Potential Hazard	Probability	Impact	Strategy
Deconstruction of crane	Lead Paint	Possible	Medium	Hazardous Paint Management Plan
Pre start check on equipment	Fuels and oils - environmental hazards	Possible	Low	Regular Maintenance Checks
Weed seeds being carried onto site by vehicles and equipment	Contamination and environmental damage to worksite and surrounds	Possible	Minor	
Office, ablution, crib and store set-up	Environmental damage from waste water systems	Possible	Low	
Light vehicle movements	Environmental issues such as	Unlikely	Low	

(on/off site)	dust, hydrocarbon leaks / spills			
Oil drain of drives, fluid couplings etc.	Oil spillage	Possible	Low	
General	Noise	Unlikely	Low	
	Uncontrolled noise impact upon people, community, environment.	Possible	Low	
	Adverse impact on community from dust	Possible	Low	
	Uncontrolled fire and fumes impact upon people, community, environment and property	Possible	Low	
	Management of wash down water.	Possible	Low	
	Management of waste material.	Possible	Low	

9.2 LEAD PAINT MANAGEMENT

The structure is coated in a lead paint which has severely deteriorated and poses a significant environmental risk – See Hazardous Paint Management Plan under separate cover.

Scaffolding will be erected in the designated materials processing / handling area fitted with shade cloth to contain and mitigate against fugitives airborne lead paint and water runoff.

Any water runoff will be filtered through a barrier “Socks” which will be installed at the foot of the scaffold.

9.3 WATER MONITORING

During the background environmental survey, water samples shall be collected from the water adjacent to the crane, for analysis of lead and chromium content (unfiltered).

Routine water quality sampling shall be carried out at 3 monthly intervals, and on completion of the works. Additional water sampling shall be carried out during the works if mishaps or spillages occur.

Silt socks shall be used in the materials handling / processing area and all drains shall be covered with geotextile fabric. Every attempt will be made to divert water away from the works where reasonably practical.

9.4 SOIL CONSERVATION

Prior to deconstruction works, soil and surface dust sampling should be carried out in the surrounding areas.

The survey shall include 4 soil samples and a minimum of 10 surface dust samples, with the exact sampling locations to be determined by a suitably qualified hygienist at the time of the survey.

Additional surveys (using the same locations) shall be conducted at key intervals during the works, including:

- After 3 months from commencement
- At six monthly intervals thereafter if the results after 3 months indicate that emissions are being controlled (more frequently if indicated by adverse results).
- If otherwise indicated by complaint or mishap
- After completion of the deconstruction works.

A visual inspection of the site and surrounding areas shall also be carried out, and additional samples taken using judgemental sampling wherever there are signs of possible contamination.

In addition to the above, every endeavour shall be taken by Liberty Industrial to prevent the erosion of soil by wind or water on the land used or occupied by the company, to prevent the deposition of soil in watercourses during execution of any project work

To assist in controlling the spread of soil-borne diseases and fungi, all plant required for the works shall be washed down before any such plant is brought into the vicinity of the site.

Liberty Industrial shall also wash down all plant before the plant leaves the site where plant was last used or stored to mitigate against the transportation of weed and seed.

9.5 NOISE MANAGEMENT

9.5.1 Objective

The objective of this noise management strategy is to minimise noise emissions from the project work and assist in maintaining a satisfactory noise environment.

9.5.2 Noise Criteria

Liberty Industrial adheres to “Managing Noise and Preventing Hearing Loss Work Code of Practice 2011 in order to keep noise to a minimum for workers and other parties who would be affected by the works.

Background noise levels are determined pursuant to Australian Standard 2107-1987.

For the Hammerhead Crane project, the noise levels should not exceed the following an LA10 (15 minute) noise emission criterion of 75 dB(A) (6am to 6pm), or background plus 20 dB(A).

9.5.3 Noise Monitoring

The noise levels shall be recorded at two separate points on the site during the works. The noise levels will be monitored and the noise emissions will be recorded. This is to ensure that the noise emissions do not exceed the dB(A) as expressed at 9.5.2 above.

9.5.4 Potential High Noise Emission Activity

The following processes have the potential to impact on the noise amenity of the adjacent spaces:

- Operation of percussive equipment;
- Carrying out of loud activities;

9.5.5 Noise Control Methods

The determination of appropriate noise control measures will be dependent on the particular activities and plant. Noise monitoring will be undertaken to determine the effectiveness of the implemented measures.

Continuing noise monitoring verify the current controls or highlight the need to further abatement measures to reduce the noise level the expressed at 9.4.2 above.

9.5.6 Available control methods.

Localised Acoustic Barrier

Localised Barriers or screens can be an effective means of reducing noise. Barriers can be located either at the source or receiver.

Silencing Devices

Where process or plant is noisy, silencing devices may be installed. These may take the form of engine shrouding, or special industrial silencers fitted to exhausts, as recommended by manufacturers.

Material Handling

It can be demonstrated that the installation of rubber matting over material handling areas can reduce the sound of impacts due to material being dropped by up to 20dB(A).

Treatment of Specific Equipment

All plant brought to the site will be maintained to the manufacturer's specification.

Any plant not conforming to Australian standards for noise emission will be stood down immediately for rectification or removed from the site.

Site Rules

Site rules can be implemented to undertake noise emitting work out of hours.

All potential noise emitting work shall be arranged in consultation with BJC and FBE.

Working Hours

Noisy Work to be undertaken during the base operation hours of 7am to 7pm

Consultation with affected Parties

In order for any noise management strategy to work effectively, continual communication is required between all parties. This establishes a dynamic response process, which allows for the adjustment of control methods and criteria for the benefit of all parties.

Ref:

PRO-038 Guide to Noise Management

9.6 ODOUR CONTROL

Liberty Industrial does not anticipate that there will be any odours emitted from the works. However, should odour be detectable at the site boundary, appropriate action will be taken to reduce the odour. Should the need arise; the odour intensity will be measured using the Nasal Ranger Field Olfactometer.

The release of odours from trucks and barges has the potential to affect air quality. The odours shall be limited by ensuring that;

- All removal equipment is properly maintained and serviced to minimise exhaust emissions
- All trucks / barges used during the removal works will not be left running idle
- Transportation of materials is done in a manner that will minimise the number of vehicle movements through the local community.

Odour emissions caused by metal cutting and fabrication works to be controlled using industry best practice techniques to ensure minimal impacts to surrounding environments.

9.7 FIRE PRECAUTIONS

Liberty Industrial shall prevent, where reasonably practical, the degradation of air quality by fires created by hot work operations. Burning of waste material is strictly forbidden.

Liberty Industrial shall provide, operate firefighting plant for the protection of the works and plant.

The company will take all necessary measures to prevent fire during the execution of works.

The company will comply with the requirements of the Local Fire Authority Act and Regulations and shall ensure that all workers on the site observe these requirements.

Liberty Industrial shall take notice of, and implement appropriate strategies for, any announcements by Fire Authorities, particularly the notification of days of Total Fire Ban.

9.8 CONTROL OF SURFACE WATER RUN-OFF

The company shall design, supply, install, maintain and operate drainage systems to control surface run-off from the site. The company shall implement, wherever practicable, the recommendations set out in the *Environmental Protection Authority publication Environmental Guidelines for Major Construction Sites (1996)*.

The company shall ensure that all water is discharged in a condition and manner so as not to cause erosion or pollution, or nuisance to other persons within or adjacent to the site.

Polluted water from any source shall not be allowed to enter any watercourse without first being settled and treated to remove the pollution and certified suitable to discharge by and independent authority.

9.9 WEED MANAGEMENT

All ground engaging, plant or tracked plant shall be cleaned before arrival to site removing all dirt, stones or organic material and prior to entering a weed free area to prevent transfer of weeds and plants from other regions.

All other plant shall enter the site free from excess dirt.

A copy of the Weed and Seed Certificate shall be presented to the BJC prior to entering the site as verification prior to mobilisation.

9.10 MANAGEMENT OF HYDROCARBONS

The company shall inspect all plant to be used on the works for oil and fuel leakage before it enters the site, and shall inspect all plant at regular intervals during the period it is on site.

Entry of oil, grease or fuel into any watercourse is prohibited. Drainage from any area likely to be so contaminated shall be effectively diverted to a suitable collection point.

The company shall provide, operate and maintain adequate facilities for the collection of leaking fuels, lubricants, oils, greases and the like, and for the transportation and lawful disposal of these materials off-site by a contractor licensed to undertake this task.

If pollution of the soil occurs from use of plant and equipment or spillage of any contaminant, then all contaminated soil shall be removed from the site and disposed of in accordance with the requirements of the Environmental Protection Authority.

In order to minimise the risk of polluting a watercourse, all servicing and fuelling of plant shall be carried out at locations remote from any watercourse.

All hydrocarbons and chemicals shall be secondarily contained regardless of capacity and volume. Secondary storage facilities shall ensure 110% containment of material and prevention of pollution in the event of breach of primary containment, and shall be in accordance with design specifications of Australian Standard 1940.

Service trucks and other vehicles used for the transportation of hydrocarbons and chemicals shall be fitted with appropriate spill catchment facilities to prevent drips and leaks to ground, and spill response equipment.

Generators, welders, pumps or other stationary engines shall be fitted with pumps, drip trays, or placed in secondary containment facilities at all times.

The company will ensure at least one worker in each work group is trained in competency based Spill Response Techniques.

Spill clean-up materials shall be readily available at each work site where hydrocarbons and chemicals are stored and/or used.

Spills inside and outside containment facilities shall be picked up immediately with appropriate clean up material. Contaminated soil shall be picked up and contained for removal to a licensed soil land farm. Contaminated clean up material shall be managed as oily waste.

Oily waste materials shall be segregated from general wastes and removed from site within 1 month by a licensed operator. Receipts shall be maintained as verification of type and amount of waste oil and oily materials removed from site.

Ref:

PRO-040 Control of Hazardous Substance Spills

10 WASTE MANAGEMENT

During the course of the project domestic and industrial waste will be generated. These wastes may include timber, oils, paints and solvents, sewage and general domestic refuse.

In order to minimize any risk to the environment or the health of any worker, the site will utilise approved waste procedures to manage the collection, storage and removal of waste from site.

The Project Manager will ensure all waste removed from site is documented. Details include:

- Type of waste being removed;
- Quantity of waste being removed;
- Location of where waste is to be disposed of;
- Amount of waste recycled and destination;

The company places a high priority on recycling waste materials and will use facilities in close proximity of the project to maximize recycling. Empty oil and chemical containers such as metal or plastic drums will be returned to the supplier for reuse or recycled where possible.

Ref:

FRM-123 General Waste Register

10.1 DISPOSAL PROCESS

To effectively managing waste on the project site, the company will:

- provide suitable containers for storage, collection and transport of waste;
- dispose of site generated waste at approved disposal sites;
- recycle all waste material where practicable i.e. ferrous and nonferrous materials this will achieve a projected 98% of recycled material;
- record and provide documentation that details waste leaving site and its destiny;

10.2 WASTE AND HAZARDOUS MATERIALS

The company will be responsible for the removal of all waste material generated during the deconstruction. Where practical waste material will be recycled, where this is not possible it will be disposed of in a lawful manner.

Absorbent material used to mop up minor oil or chemical spills will be disposed of appropriately as contaminated material.

10.2.1 Concrete

Any concrete waste will be taken off-site for crushing and recycled for use as road-base.

10.2.2 Asbestos

A detailed process for the management and removal of asbestos is included in the Deconstruction Management Plan.

Ref:

PRO-039 Asbestos Removal

10.2.3 Chemical Container Wastes

The contents of any drums and containers around the site will be identified, removed and disposed of prior to commencement of Deconstruction. All workers will wear suitable clothing and protection equipment where required.

10.2.4 Domestic Waste

Domestic waste generated on site will mainly consist of food scraps and rubbish from the crib room. The scraps will be placed in domestic rubbish bins or skips located at each crib room, and recycled or disposed of by a licensed contractor.

10.2.5 Solid Waste

Solid waste is generated during deconstruction and shall be designated as recyclable and non-recyclable waste.

Recyclable waste consists of:

- Scrap steel (ferrous and nonferrous);
- Concrete and brick;
- Waste oil;

Non-Recyclable Waste:

- Timber;
- Rubble;

This waste shall be stockpiled located around the site, collected and disposed of at the approved location.

10.2.6 Hazardous Waste

Hazardous waste may include paint and solvent containers, insulation materials, oils and cleaning chemicals.

- Hydrocarbon waste shall be collected, stored and transported offsite for recycling or disposal at an approved facility;
- Chemical waste shall be stored in accordance with the MSDS for that substance and shall be disposed of in accordance with EPA and local requirements;
- Any contaminated soils shall be placed in leak-proof containers and removed from site to an authorized facility.

10.2.7 Floating Plant Waste

Tug boats for barges will be fitted with sewerage and waste systems as required (Note: Barges will not have this fitted).

Barges and tug boats will control ballast water while within Sydney Harbour.

11 STORAGE AND USE OF HAZARDOUS MATERIALS

The use and storage of hazardous materials on site may be required during the project. Therefore it is imperative that all site personnel are aware of environmental procedures to ensure:

- Protection of the environment;
- Compliance with statutory requirements;
- Control risks associated with chemical hazards;
- Protection of the Health and Safety of personnel;
- Stored temporarily in labelled and sealed vessels of up to 200 litre capacity;
- Temporary onsite storage area must be adequately signed and secure to prevent vandalism and unauthorised access;

11.1 CHEMICAL SUBSTANCES AT THE DECONSTRUCTION SITE

Procurement, storage and handling of hazardous materials must be managed to ensure that any potential environmental degradation is kept to a minimum.

Should there be a requirement for the use and storage of hazardous goods, the company will maintain a Hazardous Substance register.

All hazardous substance shall but not limited to the following:

- Be accompanied by a Material Safety Data Sheet (MSDS), less than 5 years old;
- Be approved for use by DoD, with confirmation that the hierarchy of controls (including use of non-hazardous materials) was considered to reduce the risk;
- Be documented in a risk assessment/ safe work method statement prior to works commencing;
- Be recorded on a hazardous substances register;
- Be appropriately stored and labelled in accordance with national standards, including during handling and transporting substances;
- Be managed by appropriately skills/ certified personnel for use and disposal;
- Have minimum quantities required stored on site;
- Have appropriate spill management procedures in place for the substance and quantity available on site, including appropriate PPE (in accordance with the MASA requirements);
- Have nominated worker(s) who can apply appropriate first aid arrangements consistent with those documented on the MSDS.

All hazardous substances brought to site must also be removed from site and disposed of appropriately so as not to pose a threat to site worker(s) and/or the environment;

11.2 MATERIAL SAFETY DATA SHEET

A Material Safety Data Sheet (MSDS) must be obtained for each substance brought onto the deconstruction site. The MSDS must be obtained from the manufacturer or supplier and be filed on site for references by site personnel.

Ref:

WI-025 Hazardous Substances - Material Safety Data Sheets

11.3 LABELLING

All containers containing hazardous substances must be clearly labelled identifying its contents. Further information is available by referencing the MSDS, usually located in the project office. Prior to substances coming on site, approval will be gained from the client.

Any decanted substances must be clearly labelled with the product name.

12 RISK ASSESSMENT

Risk Assessment involves the identification of hazards (potential to cause harm), assessment of the risks posed by those hazards, development of controls to eliminate and minimise risks, and the ongoing management of the risk control measures.

Risk Assessment and Risk Management strategies will be used consistently throughout the project.

JHA's will be conducted prior to the commencement of each activity. The JHA is used to identify both WHS and Environmental hazards. If a task changes significantly or a change occurs in the environment, or other hazards are identified, the JHA will be reviewed.

A copy of the JHA will be available at the workplace and the original filed in the Project Office

The Project Manager is responsible for ensuring risk controls are implemented and monitored for effectiveness.

Ref:

PRO-015 Hazard and Risk Management

LI-WI-009 How to conduct a Hazard Risk Assessment

12.1 HAZARD IDENTIFICATION AND REPORTING

Any worker identifying a hazard shall:

- Firstly attempt to eliminate or control the hazard, and then,
- Report the hazard immediately to the responsible supervisor.

- The responsible supervisor shall ensure identified hazards are promptly reported and recorded on the hazard register

All Hazards shall be actioned and signed off as completed in a timely manner. Hazards will be reported to the supervisor as soon as possible. If the hazard can be corrected or controlled by the person/s that identify it they must do so immediately. If the hazard cannot be corrected or controlled the hazard must be isolated and other personnel protected from the hazard.

12.1.1 Take 5

Workers are encouraged to be accountable for their own and others actions, and to immediately address issues that are unsafe or have unacceptable risk. To facilitate this behaviour, the company will use the Take 5 System where all workers carry a formatted note book to help identify a hazard or potential hazard, which requires the individual to take action and document the action taken.

All workers will be operating under this system and will be instructed in its use during the site induction.

All tasks will have a Take 5 carried out immediately before that task is undertaken.

Take 5 is a simple hazard identification and risk assessment, undertaken immediately prior to starting the task. It is designed to ensure that the workers assess each task for risk by completing the checklist as follows:

- Think through the task – break into steps;
- Spot the hazard – “What if”;
- Assess the risk;
- Make the changes;
- Do the job safely.

Ref:

WI-011 Take 5

12.2 HAZARD INVESTIGATION

All environmental hazards and issues are to be reported as soon as practicable to the relevant supervisor.

The supervisor will investigate hazards reported immediately; the investigation findings will be detailed and reported back to the workgroup at the next opportunity (normally pre shift meeting).

The intent of Take 5 Hazard Identification is to be pro-active in identifying, evaluating and controlling hazards that may result in incidents involving injury, environmental issues or equipment damage.

Should the matter remain unresolved, it will then be addressed between the employee, their supervisor, and the Project Manager.

Ref:

PRO-015 Hazard and Risk Management

13 MONITORING AND REPORTING

Liberty Industrial has a number of measurement indicators which help us to track progress on meeting policy commitments, and to achieve objectives and targets. We primarily collect and analyse data to evaluate the organization's environmental performance, and to evaluate the performance of the environmental management system.

These progress indicators are used across a range of activities such as storage and handling procedures, noise and air quality, disposal activities, and are primarily used to measure elements such as, the number of environmental incidents, the number of environmental accidents, the percentage of waste recycled, and, the number of prosecutions incurred by the company.

13.1 METHODS OF EVALUATION

We use a range of methods to evaluate our progress and compliance against the set criteria. These include processes such as

- audits, both internal and external;
- review of documents and/or records;
- employee and Client feedback;
- project or work reviews and reporting;
- direct observation;

13.2 REPORTING

As a minimum on every project, the Liberty Industrial Project Manager will:

- Establish and maintain necessary records for the recording and reporting of environmental incidents at the workplace;
- Encourage worker participation in reporting environmental incidents;
- Ensure all environmental incidents are investigated and reported in accordance with company and client procedures;

- Notify the relevant Authority of environmental incidents, as required;

In general and where appropriate on specific projects, Liberty Industrial management will take responsibility to:

- Arrange environmental talks, demonstrations, posters, etc. to promote environmental awareness where required and display the company's commitment;
- Investigate any environmental degradation at the workplace and promote interest in the environment and control strategies;
- Establish a daily checklist of those environmental issues considered in need of monitoring, such as; dust levels, noise levels and odour levels;

14 KEY PERFORMANCE INDICATORS

Description	Target
Environmental KPI's	
Legal requirement compliance	100%
Environmental project risk assessment	100%
Communication	95%
Document control	100%
Emergency preparedness	95%
Non-conformance and corrective action	< 3
No of incidents (spills)	< 3
No of EPA Inspector visits (cumulative for the year)	< 3
Audit compliance annual	95%