

Environmental Management System (EMS)

January 1

2020

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Environmental Management System

Introduction

EMS is a process or tool to improve environmental performance. It contains information mainly for design, pollution control and waste management, minimisation, and training and reporting to senior management and QSE manager. It is a systematic way of managing our company's environmental affairs.

The key principals are as follows;

- Policy
- Management
- Training
- Reporting/Checklists/Controls
- Sustainability

Environmental Management System

Policy

Sustainable environmental management and execution are one of the primary values at DGV Construction Pty Ltd. We are committed to high environmental performance within procurement and construction.

In order to be recognised, we continue to add value by designing and implementing eco-friendly solutions for our clients.

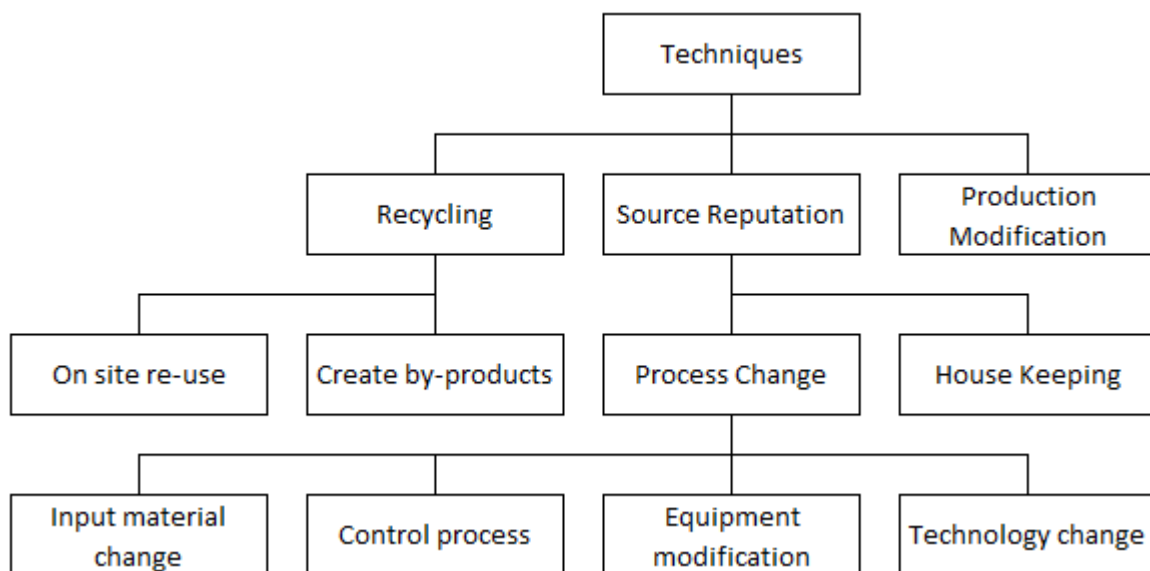
It is our intent to effectively manage and improve our environmental performance in order to minimise the impacts of our business on the environment, our clients, and the communities in which we work.

Management

To remain confident in achieving our goals, we have systems in place which allows us to follow key principals;

- Implementing EMS complying to legislations and standards
- Providing clients with sound design and execution plans
- Preventing pollution and minimising any adverse impacts
- Involve all personnel from top-to-bottom in impact recognition, elimination, and sustainable use of resources.
- Identify objectives and targets
- Promote environmental practice with all aspects of business

Minimisation



Waste Minimisation

Waste minimisation is an important element of sustainable development, on environmental protection and the reduction of production costs of waste through source reduction and recycling. Accept full disposal of waste is an impractical goal, the practical approach is their minimisation with a reduction at source, including good housekeeping, Change of technology, use of different raw materials and products, recycling both inside and outside the company.

Liquid, solid and gaseous fuels can be generated during production. Besides the environmental impact, the production of waste represents a loss from the point of view of the process of raw materials or products with related costs including those necessary to the processing of waste generated. So the practice of waste minimisation is seen not only as a means to fulfil specific environmental obligations, but is also a major source of reduction of business costs.

The waste in our company may include;

- Liquid or solid waste from processes
- Contaminated materials
- Off-specification products
- Accidental spillage
- Residual of processing machines
- Fugitive emissions
- Exhaust gas, waste water

Hierarchy of Management Practices

The hierarchy for the minimisation is the following:

1. Elimination: Complete elimination of waste
2. Source Reduction: The reduction or elimination of waste, usually in the company boundaries through changes in industrial processes, procedures
3. Recycling: The use and re-use and recycling of waste
4. Treatment: The destruction, detoxification, neutralisation of waste into less hazardous substances
5. Contribution: The release of waste into the air, or in water in controlled manner.

The practice of minimisation does not include:

- The incineration, detoxification, heat treatment and chemical, biological decomposition, stabilisation, encapsulation
- Measures to dilute the waste
- Measures to transfer the pollution from one environment to another

It's clear that all emissions in air, in water, soil, as well as energy savings and that of raw materials should be include in the waste minimisation program.

Training

Our business is focused on improvement. How we can contribute is to offer our staff training within our management systems. This includes training in managing and implementing our system. On-site training in specific environmental management, including on-site waste water management, erosion and sediment control, soil and water management and waste and Landfill management. There are also short courses available within our industry which is offered.

Reporting

Date collection and data management is important to capture, verify, and report on environmental impacts relating to our work.

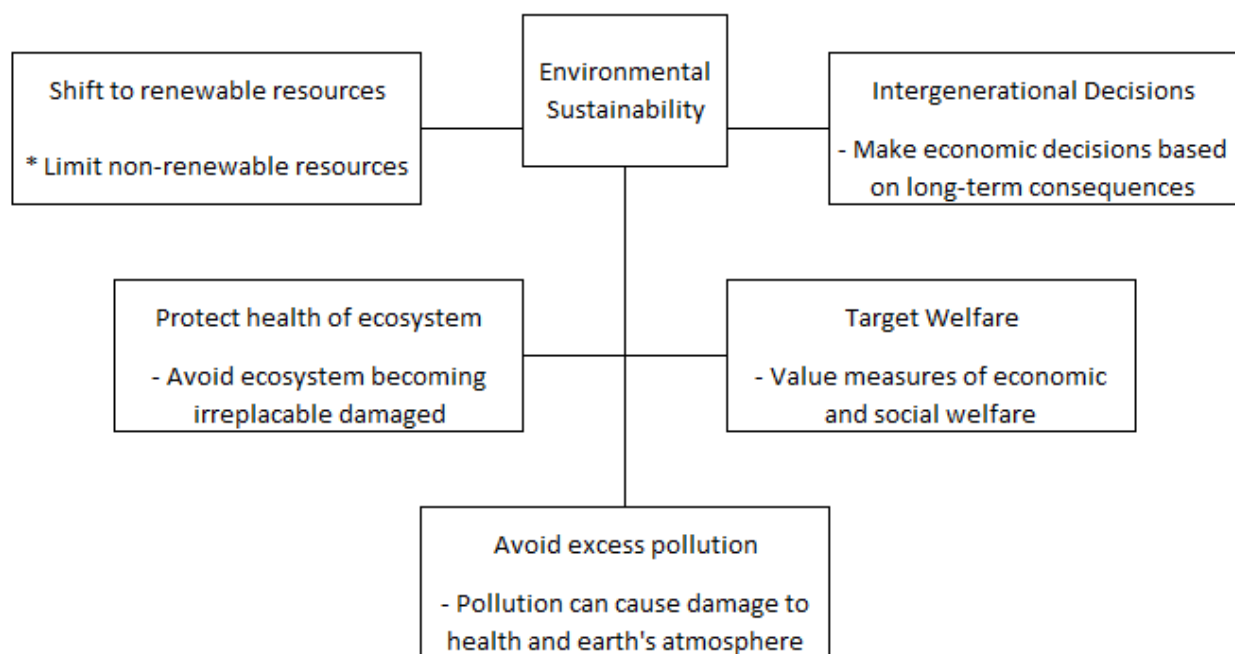
It is to access and evaluate levels of compliance for DGV Constructions activities according to our environmental management.

We have checklists in place to manage and monitor daily activities and movements.

Sustainability

At DGV, we are aware that the demands placed on the environment from our works can be critical. We endeavour to meet these demands without reducing the capacity to allow our clients and the public to live well, now and into the future.

At DGV, we set to achieve our goals without compromising the ability of future generations and to meet the needs of our clients.



Acknowledgement

Hearing and Noise Pollution

Specific Data Relating To Noise Levels of Machines

MACHINE	
Lawn Mowers	6hr suggest at all times
Vibrating Rammers	8hr at all times
Vibrating Plate	8hr at all times
Vibrating Roller	8hr at all times
Demolition & Chain Saw	8hr at all times
Compressors and Attachments Crusher	At all times wear protection when using drill or jackhammer
Crusher	Wear protection at all times
Workshop	At all times when cutting, grinding, be aware of other workers when using equipment with excessive noise.

The above periods of wearing protection are a suggested minimum unit accurate measurements are made of equipment owned and used by contractor

Environmental Management System

Weekly Erosion and Sediment Control Checklist

PROJECT:

Contractor:

QUESTIONS	YES/NO	ACTION REQUIRED? (& by whom)
1. Is the surface water runoff by passing the construction area adequately: i.e. is the amount of water passing through the site minimised?		
2. Are all disturbed areas protected against the effect of erosion and is the protection reinstated at the end of each day's work?		
3. Has contaminated water been adequately treated prior to discharging from the work area?		
4. Is the water quality leaving the work site equally as clean as the water entering the work site?		
5. Are all silt fences erect, properly trenched in and reinstated at end of each day's work?		
6. Are all stockpile areas protected with perimeter silt fencing and/or geotextile coverings?		
7. Are sedimentation basins maintained and working correctly? (Excess silt builds up cleaned out?)		
8. Are catch drain maintained and functioning correctly?		
9. Are stormwater pits protected with adequate silt traps?		
10. Is dust being controlled?		
11. Is perimeter fencing secure to minimise disturbance to the natural surface?		
12. Are all access ways to and from the site clean, secure and protected against damage due to traffic and wet weather?		
13. Are all other erosion and sedimentation protective measures maintained and functioning correctly?		
14. Other comments/checks		

Signed: (Sup. Rep)

Name:

Date:

Signed: (Contractor)

Name:

Date:

Safety and Environment Inspection Checklist

Issue No	Issue Date	Amendments/Remarks
		General update, & safety element numbers added to statistics sheet at back
		General Revision
		General update, add penetrations, and permit to excavate issued
		General revision

Project:

Project Manager

Date and Time:

Foreman:

SAFETY ISSUES	Tick OK	CORRECTIVE ACTION/COMMENTS
1. Excavations, Fencing and Slope Materials:		
Batters cut at correct slope for materials?		
For excavations>1.5m deep is there shoring or benching?		
Falls<1.5m do they pose risk and have these risks been controlled?		
Falls<1.5m are fences supplies?		
Falls>1.5m do fences provide a physical barrier to prevent persons falling? (i.e. handrail)		
Are fences maintained?		
Are all penetrations covered with secured covers?		
2. Plant and Machinery:		
Plant certification/Logbooks being filled out?		
Chains and slings checked records kept?		
ROPS protection installed on a plant?		
Operator Tickets and certification to operate machinery?		
3. Personal Protective Equipment:		
Are all vests being worn near plant and machinery?		
Are hardhats being worn when required?		
Is eye protection being worn when required?		
Is ear protection being worn when required?		
Are safety boots being worn?		
Is appropriate clothing being worn?		
Are records kept of PPE issue to workers?		
4. Electrical Safety:		
Is all electrical equipment tagged for the current month & 3monthly for items in site shed?		
Are all leads up off the ground and hanging off insulated hangers or support?		
Are lead lengths as per Workcover code of practice?		
Do any multiple outlets include an earth leakage device?		

5. Manual Handling:		
Are machines used if possible to handle loads?		
Are loads considered to be heavy for one man, handled by machine or team lifting?		
Are correct manual lifting procedures used?		
Are manual handling concerns addressed properly?		
6. Hazardous Substances:		
Are all fuels stored in a fuel storage facility?		
Is a MSDS on site for all hazardous materials?		
Are workers inducted into the hazards of working with that material?		
Is appropriate PPE supplied for the material?		
Is a Hot Works Permit required? If yes, is it issued, signed off, and stored as a record?		
Is there a fire extinguisher with each oxy set?		
Are there flashback arrestors on each oxy set?		
7. Traffic Management:		
Is traffic egress controlled?		
Does the traffic controller have a stop and slow bat?		
Is the traffic controller authorised?		
Does each TC have a distinguishing mark on their person stating that they are qualified traffic controller?		
For roadwork, is a TCP issued?		
Is the TCP followed?		
Are records (pre-start and close checklists) completed and stored?		
8. Service Search/Permit to dig:		
Has a permit to excavate been completed and issued to all plant operators?		
Is hand excavation occurring within 1m of services?		
Has a dial before you dig enquiry been conducted on this project?		
9. Housekeeping, Lighting and Ventilation:		
Is the work-site clean and tidy with good housekeeping to prevent slips, trips and falls?		
If used is formwork de-nailed after use?		
Is adequate lighting provided at the workplace?		
10. Ladder Safety/Access:		
Are ladders inclined at a 4 in 1 slope?		
Does the ladder extend more than 1m above the egress?		
Is ladder secured at the top?		
Is the ladder in good condition?		
Is access to site delineated or controlled to allow safe passage for both persons and machines?		

11. Inductions:		
Are all personnel inducted into Site specific safety?		
Are all personnel inducted into Construction safety?		
Are all personnel inducted into Specific activity safety?		
12. Strike Injuries:		
Is all exposed reo bar protected with bar caps?		
Is there danger from falling objects?		
13. Environment:		
Are silt control devices installed around s/w caps?		
Are silt controls installed correctly?		
Are silt controls maintained?		
Is dust controlled as per Project Quality Plan?		
Is noise controlled as per Project Quality Plan?		
Does the site have environmental controls?		

STATISTICS SHEET		
RISK AREA OR PROCEDURE	NUMBER OF NON CONFORMANCES	NCR/PAR(S)
1. Excavations, Fencing & Slope Stability		
2. Plant and Machinery		
3. Personal Protective Equipment		
4. Electrical Safety		
5. Manual Handling		
6. Hazardous Substances		
7. Traffic Management		
8. Services Search/Permit to Dig		
9. Housekeeping, Lighting & Ventilation		
10. Ladder Safety		
11. Inductions		
12. Strike Injuries		
13. Environmental		