

DRIMOLEAGUE CONCRETE WORKS LTD.

*Suppliers of: Readymix Concrete • Blocks & Precast
Sand & Gravel • Hardcore & Crushed Rock*

ENVIRONMENTAL MANAGEMENT SYSTEM

DRIMOLEAGUE CONCRETE WORKS LTD

**UMMERA SAND/GRAVEL PIT
UMMERA,
MACROOM
COUNTY CORK**

JANUARY 2020

Environmental Management System - Contents

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ENVIRONMENTAL POLICY

Drimoleague Concrete Works Ltd.

is a provider of natural aggregates, ready-mix concrete and construction materials operating in County Cork at

1. Bredagh Cross, Drimoleague (concrete batching and block plant)
2. Coolbane Caheragh Drimoleague (rock quarry)
3. Inchafune Dunmanway (sand & gravel pit)
4. Ballard Castletownbere (concrete batching)
5. Ummera Macroom (sand & gravel pit)

We recognise that each activity, product and service that we provide has a potential impact on the environment and the local community. Our objective is to minimise the environmental impacts and where practicable provide environmental benefit.

The company is committed to compliance with existing legislation, prevention of pollution and continuous improvement of environmental management.

To ensure that environmental impacts are controlled and minimised and that our objectives & commitments are achieved we have established and will maintain an Environmental Management System.

This system is part of the overall management system for the sites and will enable us to provide materials and services to society in a manner which ensures that we meet our environmental obligations.

Signed _____ 01/01/2020
Managing Director

MANAGEMENT ORGANISATION & RESPONSIBILITIES.

Directors – Drimoleague Concrete Works Ltd

Eugene Murnane

Fiona Murnane

General Manager - Drimoleague Concrete Works Ltd
&
Environmental Manager - Drimoleague Concrete Works Ltd

Eugene Murnane

Ummiera Gravel Pit – Quarry Manager

Roy Kingston

Health & Safety Officer – AllSafe Risk Management & Safety
Consultancy Ltd

Peter Fehily

| Name | Location | Contact Number |
|----------------|------------------------|----------------------------|
| Eugene Murnane | Bredagh Cross | 086-8379662 |
| Fiona Murnane | Lahadane, Bantry | 027-50198 |
| Eugene Murnane | Bredagh Cross | 086-8379662 |
| Roy Kingston | Ummiera | 086-8365287 |
| Peter Fehily | AllSafe – Wilton, Cork | 021-4347436 086-2463436 |

Specialist are engaged to carry out environmental monitoring.

LIST OF RELEVANT IRISH PLANNING AND ENVIRONMENTAL LEGISLATION

Table of Statutes

1. The Forestry Act 1946.
2. Local Government (Planning and Development) Act 1963.
3. Local Government (Planning and Development) Act 1976.
4. Local Government (Water Pollution) (Amendment) Act 1976.
5. Local Government (Water Pollution) Act 1977.
6. Local Government (Planning and Development) Act 1982.
7. Local Government (Planning and Development) Act 1983.
8. Air Pollution Act 1987.
9. Safety, Health and Welfare at Work Act 1989.
10. Derelict Sites Act 1990.
11. Local Government (Water Pollution) Act 1990.
12. Local Government (Planning and Development) Act 1990.
13. Local Government (Planning and Development) Act 1991.
14. Local Government (Planning and Development) Act 1992.
15. Environmental Protection Agency Act 1992.
16. Local Government (Planning and Development) Act 1993.
17. The Heritage Act, 1995.
18. Waste Management Act 1996 & Amendments.
19. Wildlife (Amendment) Act, 2000.
20. Planning & Development Act 2000.
21. Safety, Health and Welfare at Work Act 2005 (Quarries).
22. Planning & Development (Amendment) Act, 2010.

Table of Statutory Instruments

1. Local Government (Planning and Development) Regulations 1964.
2. Local Government (Planning and Development) Regulations 1977 (SI. No.65).
3. The EC (Waste) Regulations 1979.
4. The EC (Toxic and Dangerous Waste) Regulations 1982.
5. Air Pollution 1987 (Air Quality Standards) Regulations 1987 (SI No.244).
6. Local Government (Water Pollution) Regulations 1987 (SI No.108)
7. Air Pollution 1987 (Licensing of Industrial Plant) Regulations 1988 (SI No.266) .
8. European Communities (Environmental Impact Assessment) Regulations 1989 (SI No.349).
9. The EC (Environmental Impact Assessment) Regulations 1990.
10. The EC (Asbestos Waste) Regulations 1990.
11. Local Government (Planning and Development) Regulations 1990 (SI. No.25).
12. The EC (Waste oil) Regulations 1992.
13. Local Government (Water Pollution) Regulations 1992 (SI No.271).
14. Access to information on the Environment Regulations 1996.
15. The EC (Waste) Regulations 1994.
16. Environmental Protection Agency Act 1992 (Commencement) Order 1994 (SI No.82).
17. Environmental Protection Agency (Licensing) Regulations 1994.
18. European Communities (Environmental Impact Assessment) (Amendment) Regulations 1994 (SI No.84).
19. Local Government (Planning and Development) Regulations 1994 (SI No. 86).
20. Local Government (Planning and Development) Regulations 2001 (SI No. 600).
21. Planning & Development (Amendment (No. 2) Regulations 2015 (SI No. 310).
22. European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (SI No. 296).
23. Health and Welfare at Work (Quarries) Regulations 2008 (SI No. 28).
24. Safety, Health and Welfare at Work Act 2005 (Quarries) (Repeals and Revocations) (Commencement) Order 2008 (SI No. 29)
25. Safety, Health and Welfare at Work (Quarries)(Amendment) Regulations 2013 (SI No. 9)

List of Technical Reference Documents

1. Sand and Gravel Association (SAGA) Code of Practice, August 1991.
2. BACMI The British Aggregate Construction Materials Industries, Environmental Code, March 1992.
3. The Extractive Industry and the Environment in Ireland, Britain and the rest of the EC. Irish Mining and Quarrying Society Conference 1993.
4. Environmental Practices and Audit Checklist for the Ready Mixed Concrete Industry. ERMCO 1996.
5. Secretary of State's Guidance - Blending, packing, loading and use of bulk cement. Department of the Environment, London, February 1991.
6. Secretary of State's Guidance - Quarry Processes - PG3/9 (96) Department of the Environment, London.
7. Secretary of State's Guidance - Mineral Drying and Roadstone - Coating Processes, PG3/15 (96) Department of the Environment, London.
8. Secretary of State's Guidance - Mobile Crushing and Screening - Processes, PG3/16 (96) Department of the Environment, London.
9. Minerals Planning Guidance: The control of noise at surface mineral workings (MPG 11), Department of Environment, London, April 1993.
10. Quarries and Ancillary Activities, Guidelines for Planning Authorities, Dept. of the Environment, Heritage & Local Government, April 2004
11. Environmental Management in the Extractive Industry, EPA, 2005.
12. Environmental Management Guidelines – Environmental Management in the Extractive Industry (non- Schedule Minerals), EPA 2006.
13. Geological Heritage Guidelines for the Extractive Industry, Geological Survey of Ireland 2008.
14. Wildlife, Habitats & the Extractive Industry – Guidelines for the Protection of Biodiversity with the Extractive Industry, Notice Nature 2009.
15. Code of Practice between the Department of the Environment, Heritage and Local Government and the Irish Concrete Federation, 2009.
16. Code of Practice: Wastewater Treatment Systems for Single Houses, EPA, 2010.
17. Environmental Protection Agency (EPA). Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities, 2012.

SECTION 4 - ENVIRONMENTAL GUIDELINES

Introduction

These Guidelines provide advice on possible Environmental Standards and Emission Limit Values to be adopted in accordance with the BATNEEC principle (Best Available Technology Not Entailing Excessive Cost).

Note: The Irish Concrete Federation Environmental Code shall apply where no particular environmental standards have been set for the Location in applicable Planning Permissions, Air Pollution Licenses, Water Discharge Licences, etc.

Areas of Environmental Concern

Noise Control

Control of Air Emissions

Water Management

Waste Management

Visual Amenity & Housekeeping

Archaeology, Ecology & Reinstatement

Energy and Transport

Security & Public Safety

Section 4.1 - Environmental Guidelines

on Noise Control

Introduction

The guideline provides advice on possible actions to improve environmental performance and to minimise impacts in accordance with the BAT the principle (Best Available Technology).

This guidance refers to general quarry operations including overburden removal, washing & screening, and materials handling & loading.

| Emissions Limit Values: | | |
|---------------------------------|---------------------------|---|
| Parameter | Emissions Standard | Basis of Standard |
| Noise-day (08.00-20.00 hours) | <55 dB (A) | EPA Environmental Management Guidelines ICF Environmental Code |
| Noise-night (20.00-08.00 hours) | <45 dB (A) | EPA Environmental Management Guidelines ICF Environmental Code |

Monitoring of Emissions:

Noise monitoring at property boundaries confirm noise levels are well within emission limit values.
Repeat noise monitoring every 5 years, during investigation of received noise complaint or following significant change in operations.
Noise measurement to be monitored for a period of 1 hour.

Guideline Basis/Useful References:

- International Standard ISO 1996-2:2017. *Acoustics – Description, measurement and Assessment of environmental noise, Part 2: Determination of environmental noise levels*. International Standards Organisation, 2017.
 - BS 5228:2009+A1:2014. *Code of practice for noise and vibration control on construction and open sites Part 1: Noise*. British Standards Institution, 2014.
 - *Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities*. EPA, 2012.
 - *'Environmental Management in the Extractive Industry'*. EPA 2006.
 - *Environmental Code*. ICF, Dublin, 2005 Revised Edition.
-

Some possible Actions to Control Noise (refer BATNEEC principle):

- Where practical, operate within day hours.
- Close door of buildings.
- Repair damaged cladding of buildings.
- Regular maintenance of noisy plant & equipment.
- Use rubber or polyurethane cloths in screens.
- Enclose noisy equipment such as, crushers, screens, burners, compressors, etc.
- Fit silencers or attenuators.
- Fit anti-vibration mountings.
- Place screening berms.
- In relation to control of noise, maintain plant & equipment, deal promptly with malfunctions and train staff.
- Impose speed limits within site/facility boundaries.

Section 4.2 - Environmental Guidelines on Control of Air Emissions

Introduction

The guideline provides general advice on possible actions to improve environmental performance and to minimise impacts in accordance with the BAT the principle (Best Available Technology).

This guidance refers to operations including loading materials & blocks and crushing stone.

| Emissions Limit Value: | | |
|---------------------------------------|---|--------------------------|
| Parameter | Emission Standard | Basis of Standard |
| Measured total solids deposition rate | <350 mg/m ² /day (Total=Soluble+ Insoluble) | T.A. Luft |
| Visibility of dust emission | Aim for no visible dust emissions | ICF |

Monitoring of Emissions to Air:

- Visually check emissions at least once per day–aim to minimise visible dust/smoke/fume emissions.
- Measure fugitive dust deposition levels at least twice per annum (using T.A. Luft Bergerhoff Gauges at three locations along the property perimeter)

Guideline Basis/Useful References:

- “*Environmental Code*”, ICF, Dublin, 2005 Revised Edition
- “*Environmental Management in the Extractive Industry*”, EPA, 2006

Some Possible Actions to Control Emissions to Air (refer BAT principle):

- Hard surface internal roadways with compacted stone generally and with macadam or concrete to exit.
- Apply a 15kph speed limit on all internal site roads.
- Keep roadways clean or wet with adequate drains to avoid ponding.
- Install a wheel-wash where necessary – ensure use, keep clean & filled with water.
- Ensure all vehicle exhausts are vertical & modify dumptruck radiator fans to minimise dust rising.
- Use deep trough conveyors at ground level to minimise wind whipping.
- Enclose conveyors if needed to minimise wind whipping (check strength of structure for increased wind loading) & fit belt scrapers.
- Fit last meter of stockpile conveyors & first 0.5 metre of the fall with a full hood, and use water suppression.
- Fit properly sized filters on top of bulk powder silos and control filling/blowing rate.
- Condition material containing 0-5mm fines with water before handling.
- Place stockpiles in sheltered areas; construct & profile stockpiles to minimise wind-entrainment
- Load to & from stockpiles and load trucks so as to minimise the generation of airborne dust.
- Sheet or dampen trucks loaded with material containing 0-3mm fines – as soon as possible after loading.
- Avoid the generation of smoke – do not burn rubbish.
- In relation to control of emissions, maintain plant & equipment, deal promptly with malfunctions and train staff.

Section 4.3 - Environmental Guidelines on Water Management

Introduction

The guideline provides general advice on possible actions to improve environmental performance and to minimise impacts in accordance with the BAT the principle (Best Available Technology).

| Emissions Limit Value: | | |
|-------------------------------|--------------------------|--------------------------|
| Parameter | Emission Standard | Basis of Standard |
| Total suspended solids | <= 35 mg/litre | ICF |
| Biological Oxygen Demand | <= 25 mg/ litre | ICF |
| pH | <= 9 | ICF |

Monitoring of Water Discharges (where appropriate):

- Check quality of discharge quarterly or as conditioned in planning permission/discharge licence.
- Visually check discharges at least once per month.
- Visually check settlement lagoons at least once per month for efficiency.
- Monitoring water quality in the receiving water courses upstream and downstream of the site.

Guideline Basis/Useful References:

- "Environmental Code", ICF, Dublin, 2005 Revised Edition
- "Environmental Management in the Extractive Industry", EPA, 2006.

Some Possible Actions to Manage and Protect Water Quality (refer BAT principle):

- Eliminate discharges if possible.
- Minimise use of water generally.
- Maximise catchment and recycling of process water and storm water (as appropriate).
- Recycle water from washouts and wheel wash by use of suitable settlement tanks.
- Ensure sewage treatment facilities are fully functional and comply with good practice.
- Ensure fuel oils are properly bunded, attachments and pumps inside the bund.
- Install an oil class interceptor to receive surface water in the area of bunded fuel tanks or as appropriate.
- Minimise use of drummed products, see also Section 4.4 Waste Management.
- Refer also to Section 5 on Emergency Response Procedures.

Section 4.4 - Environmental Guidelines on Waste Management

Introduction

The guideline provides general advice on possible actions to improve environmental performance and to minimise impacts in accordance with the BAT the principle (Best Available Technology).

Monitoring:

- Check property regularly for waste generation
-

Guideline Basis/Useful References:

- *"Environmental Code"*, ICF, Dublin, 2005 Revised Edition.
 - *"Environmental Management in the Extractive Industry"*, EPA, 2006.
-

Some Possible Actions to Manage Waste (refer BAT principle):

- Minimise production of waste generally.
- Maximise recycling through careful separation of waste streams.
- Maintain designated areas for different streams such as metal, timber, tyres, batteries, oils/filters etc.
- Install suitable arrangements for storing old batteries, oil filters etc.
- Appoint specialist contractors for the collection and disposal of wastes as appropriate.
- If appropriate, specify that suppliers remove the old component when supplying new ones.
- Discontinue use of drums or IBCs by installing tanks for bulk deliveries.
- Use Just In Time purchasing techniques, if possible, where drum supplies must continue.
- Ensure staff are aware of need for diligence where waste is concerned by ongoing training.
- Where applicable, ensure returned concrete is reused immediately or recycled regularly to void being contaminated and becoming a waste product.
- Refer also to Section 4.5 on Visual Amenity & Housekeeping.

Section 4.5 - Environmental Guidelines on Visual Amenity & Housekeeping

Introduction

The guideline provides advice on possible actions to improve visual amenity & housekeeping.

Monitoring:

- Check property regularly

Guideline Basis/Useful References:

- "Environmental Code", ICF, Dublin, 2005 Revision
- Down, C.G. "Amenity Banks and Quarry Landscaping", *Quarry Management and Products*, September 1997

Some Possible Actions to Improve Visual Amenity (-refer BATNEEC principle):

- Keep entrance tidy.
- Tidy up litter and remove unsightly features.
- Clean up spillages.
- Keep scrap in designated areas.
- Maintain buildings in good condition and renew paintwork regularly.
- Repair damaged cladding on buildings.
- Maintain signs in good condition.
- Maintain lighting and roadways and entrances.
- Place screening berms to minimise visual impact.
- Profile overburden mounds with regard to visual amenity avoiding long, uniform banks.
- Seed newly constructed overburden mounds.
- Where necessary, plant hawthorn hedging along the property boundary to provide a tough, hardy, fast growing and inexpensive dense barrier.
- Where applicable, minimise and monitor dust & smoke emissions.
- Where applicable, ensure discharged water is clear of silt & free of oil traces.
- Where applicable, phase the final restoration of the site.

Section 4.6 - Environmental Guidelines on Archaeology, Ecology & Reinstatement

Introduction

The guideline provides advice on possible actions to improve protection of Archaeology & Ecology.

Monitoring:

- Check property regularly
 - Check water discharges regularly
-

Guideline Basis/Useful References

- "Environmental Code", ICF, Dublin, 2005 Revised Edition.
 - "Irish Field Monuments", Edition, 1991, Stationery Office, Dublin.
 - "Geological Heritage Guidelines for the Extractive Industry", Geological Survey of Ireland 2008.
 - "Wildlife, Habitats & the Extractive Industry – Guidelines for the Protection of Biodiversity with the Extractive Industry", Notice Nature 2009.
 - "Code of Practice between the Department of the Environment, Heritage and Local Government and the Irish Concrete Federation", 2009
-

Some Possible Actions to Improve Archaeology & Ecology Management (-refer BATNEEC principle):

- Refer to the Record of Monuments and Places for your county before carrying out soil stripping operations (copies may be obtained from the ICF Archaeology Manager). Give two months notice to the Monuments Section, Department of the Environment, Heritage and Local Government of your intention to carry out works within an archaeological zone defined within the record.
- Report discoveries of archaeological features or artefacts to the Chief Archaeologist, Monuments Section, Department of the Environment, Heritage and Local Government, or the ICF Archaeology Manager can report them on your behalf. If you require any advice regarding archaeology contact the ICF Archaeology manager.
- Protect habitats, including hedgerows, which have had to be removed
- Plant new hawthorn hedging along the property boundary to provide a tough, hardy fast growing and inexpensive barrier which will protect colonising vegetation & will provide visual amenity.
- Give at least 21 days notice to Gardai of intention to fell trees using a Felling Notice to be obtained at any Gardai station.
- Plant new native trees to replace trees, which have had to be removed.
- Contain dust emissions.
- Ensure discharged water is clear of silt & free of oil traces.
- Progress after use plans.

Section 4.7 - Environmental Guidelines on Energy and Transport Management

Introduction

The guideline provides general advice on possible actions to improve environmental performance and to minimise impacts in accordance with the BAT the principle (Best Available Technology).

Monitoring:

- Regularly monitor energy usage and, annually, review implementation of improvements and controls on the site.
- Review the fleet management arrangements regularly.
- Check access for dust and other emissions associated with transport fleet.

Guideline Basis/Useful References:

- "Environmental Code", ICF, Dublin, 2005 Revised Edition.
- "Environmental Management in the Extractive Industry", EPA, 2006.

Some Possible Actions to Manage Energy and Transport (refer BAT principle):

- Isolate energy usage, where possible, on existing plant and analyse usage against appropriate units (production, hours of operation etc.).
- Give energy efficiency a high priority in new plant purchases.
- Maintain and service plant and fleet so that they operate as efficiently as possible.
- Maintain fuel management system for fleet linked to milometer or tachometer reading of each vehicle (input required when re-fuelling).
- Maintain vehicle cleanliness when leaving the site by the provision of wheel cleaning facilities on exiting and efficient truck washing facilities on site.
- Where possible, route traffic away from sensitive areas, especially early morning and late evening
- Make provision for cleaning public roads in case of accidental spillages.
- When despatching fine materials (<3mm), either sheet or dampen load to avoid dust emissions
- Where possible, avoid traffic queues outside plant by provision of sufficient queuing and parking space inside the site itself.
- Recycle tyres, batteries, oil etc; refer to Section 4.4 on Waste Management.
- Refer also to Section 4.5 on Visual Amenity & Housekeeping.

Section 4.8 - Environmental Guidelines **on Security & Public Safety**

Introduction

The guideline provides advice on possible actions to improve locations security and public safety.

Monitoring of Security & Public Safety:-

- Check that lifebelts are in place at ponds – at least each month
- Check that fencing is in place at ponds – at least each month
- Check perimeter fencing & signs – at least each quarter
- At a minimum, fences should be designed to keep out farm animals & toddlers and to prevent easy access by adults.
- Signs should read **DANGER/HAZARD IDENTIFICATION/DO NOT ENTER**

Guideline Basis/Useful References:

- Occupier's Liability Act, 1995.
- Specification for Chain Link Fences up to 1.8 high BS 1722:part 1:1986.
- Down, C.G. "Amenity Banks and quarry Landscaping", *Quarry Management and Products*, November 1997.
- Local Government (Planning & Development) Regulations, 1994, S.1. No.86 of 1994.
- "Environmental Code", ICF, Dublin 2005 Revised Edition.

Some Possible Actions to Improve Security (-refer BATNEEC principle):

- Post **DANGER/HAZARD IDENTIFICATION/DO NOT ENTER** signs along property boundary.
- Post **DANGER/HAZARD IDENTIFICATION/DO NOT ENTER** signs at ponds & water bodies.
- Safety warning notices should be clearly visible from all along the length of the fence, give clear warning of the danger, prohibit entry, be of black text on yellow background and should include an appropriate pictorial symbol of the danger to warn children or those who cannot read.
- Erect fence along property boundary and around ponds.
- Place large boulders along side of roads over high fences.
- Fences should be designed to keep out farm animals & toddlers and to prevent casual access by adults.
- 1.4m general purpose chain link with 1 row of barbed wire to keep out farm animals & toddlers and to prevent casual access by adults – refer BS 1722; Part 1:1986.
- Barbed wire should be fixed so as to be clearly apparent and not be a hidden hazard. Any dangers from the fence must be obvious to the trespasser and it is necessary to ensure that the trespasser can only be harmed by his own decision to risk the danger.
- Fences under 2m in height are classed as "exempt development" not requiring planning permission.
- Advise Gardai of trespassers.
- Promptly clear material spills on public roads.
- Fences, gates, signs & hedgerows need to be regularly inspected and needs to be maintained (Assign Person for this task).

Environmental Guidelines on Security (Contd.)

The following are examples of possible **Warning Signs**:-



SECTION 5 - ENVIRONMENTAL EMERGENCY RESPONSE PROCEDURE

To ensure that environmental accidents and potential emergency situations relating to oil and chemical spills are dealt with in an appropriate manner, it is necessary to identify the potential occurrence and appropriate response to such incidents and to prevent and mitigate any associated harm to human health and the environment.

Oil and chemical spills present a great environmental risk to this business, and as such, spill response is a key competency requirement for the Environment Manager. However, in the event of spillage, it is imperative that all staff are aware of the need for immediate implementation of containment measures and communication with Environment Manager.

The Environment Manager, or his nominee, is responsible for carrying out this procedure in the event of a spillage. It is the responsibility of the individual who discovers the spill to:

- Immediately contain the spill ONLY IF IT IS POSSIBLE AND SAFE TO DO SO.
- Report it immediately to the Environment Manager.

If a spill occurs out of hours, the Manager or his nominee shall be contacted for advice. The Environment Manager shall identify the substances involved, direct the response accordingly and contact the appropriate personnel and external emergency services as necessary. Where the spill is of a high risk nature, the Environment Manager shall inform the Managing Director and, if appropriate, the Regulatory Authorities.

It is the responsibility of the Environment Manager concerned to ensure that all personnel are trained and are aware of this procedure and that it is periodically tested.

The Environment Manager concerned will ensure all sources of ignition are extinguished. In the event of a fire the Fire Safety Procedure shall be followed. Keep the area well ventilated if the spill is in a confined space. Ensure that all unnecessary untrained personnel are kept well away from the scene. The main risk associated with oil or chemical spills is the potential for the spill to enter drains watercourses, soils and the ground water system, causing contamination and/or fire or explosion risk. Site drainage is detailed on individual site plans, copy held by the Environment Manager.

Identify the material spilled and obtain the MSDS to ensure that handling and PPE requirements are clearly understood and that those tackling the spill are wearing the appropriate PPE. Stop the spill and contain it as best as possible, use the materials provided in the Environmental Spill Kits and ensure that the drains in the surrounding areas are sealed. Spill kits shall be maintained in the garage and chemical storage areas.

Remediation depends on the impact the contaminant has on the receptor. Remediation may involve aeration, addition of biological surfactants and restocking of fish reserves. Contact the appropriate government or concerned body to discuss, as and when required. Any waste or contaminated materials generated during the clean up of a spill shall be disposed of as per the Waste Management Guidelines.

A report form shall be completed by the Environmental Manager and reviewed after each incident by the whole management team.

This emergency Response Procedure shall be tested at least once annually under the direction of the Environmental Manager. These drills cover both key personnel and operatives whose work involves a significant degree of environmental risk. These drills will either comprise of items 1 and/or 2 below:

1. A "desktop" exercise conducted where the Manager or personnel concerned is questioned closely on how he/they would respond to various environmental incidents. Responses are compared to the procedure. Immediately on completing the desktop exercise, a follow-up check is carried out to verify the actual availability of any spill kit etc. that would have been used.
2. A drill involving the practical demonstration of spill kit materials – (booms, pads, granules etc.) and how they would be used/deployed in various environmental accidents.

Such drills shall be followed by a review of the response conducted by the Environment Manager and changes made to training and/or the procedure as appropriate. Names of drill attendees and a brief description of the drill content will be recorded by the Environment Manager after each drill has been completed.

| |
|------------------------------------|
| EMERGENCY TELEPHONE NUMBERS |
|------------------------------------|

CONTACT NUMBERS 086-8379662 (Eugene Murnane)

FIRST AIDERS - to be appointed

First Aid Box in Site Office

| EMERGENCY NUMBERS | | |
|---|------------------|-----------------------------|
| EMERGENCY | All Services | 999 or 112 |
| AMBULANCE | Cork University | 021 454 6400 |
| DOCTOR | Dr. Burke | 026 41413 |
| | Dr. Casey | 026 41281 |
| | Dr Cronin | 026 41088 |
| GARDAI | Macroom | 026 20590 |
| SOUTH WESTERN REGIONAL FISHERIES | Macroom | 026 41221 |
| E.S.B. | Emergency Wilton | 1850 372 999 021 4544988 |
| TELECOM | Repairs Service | 1902 |
| CORK COUNTY COUNCIL | Area Engineer | 026 41047 |
| | Environment | 021-4532700 |
| POISONS INFORMATION | | 01 8379964 |
| | | 01 8379966 |
| OIL SPILLAGE RECOVERY | Atlas Oil | 050 222411 |
| | Enva | 021 438 7200 |

SECTION 6 – HARMFUL SUBSTANCES

OPERATIONAL GUIDELINES

- Guidelines for Fuel & Fuel Tanks
- Receiving Oil, Fuel & Chemical Deliveries
- Operation & Maintenance of Oil Interceptors
- Septic Tanks
- MSDS for Diesel / Gas Oil
- MSDS for Oils, Lubricants etc.

Guidelines for Fuels and Fuel Tanks

Introduction

Fuels, (hydrocarbons, liquid chemicals, lubricating oils, greases and waste oils) should be kept at a waterproof bunded area, and treated with extreme caution. In the case of hydrocarbons and waste oils the capacity of the bund should be 110% of the largest tank volume or 25% of the total volume of tanks bunded, whichever is the greater. All valves and pumps on the tank should be contained within the bunded area. The bunded area should be fitted with a locking valve that should only be opened to discharge storm water to the interceptor. Alternatively, a sump should be provided in the floor of the bunded area to allow for a suction pipe to be inserted when discharging storm water.

Environmental Instructions

Environmental Instructions should be posted or distributed to anybody working with or in the general area of fuels. These instructions should include steps on how to deal with an oil/fuel spill. All staff should be aware of the need for immediate implementation of containment measures in the likelihood of a spillage.

Guidelines when working with fuels / lubricants:

The following guidelines should be followed when working with fuels and handling lubricants:

- There should be no smoking in and around the substances
- Ignition sources should be kept at a distance
- The Material Safety Data Sheets (MSDS) should be checked on or should be easily accessed
- PPE should be worn at all times
- When handling drums, the proper loading equipment should be used
- Stands and bunded trays should be provided
- Drums should be stored under cover and the surrounding area kept clean
- A spill kit should be present

In the event of spillage the Environment Manager is notified and he must record the details on a nonconformity notice, and the Emergency Response Procedure implemented.

RECEIVING OIL, FUEL AND CHEMICAL DELIVERIES

1.0 Scope

Receiving bulk and containerised oil, fuel and chemical deliveries should be carried out in a controlled and environmentally responsible manner to minimise the risk of spills and their environmentally harmful effects.

2.0 Bulk oil and fuel deliveries to site

Delivery requests – deliveries of oils and fuels are ordered by the Purchasing Manager, who will advise the supplier of the grade and quantity to be delivered.

All delivery drivers shall report to the site office on arrival. The Quarry Manager or his nominee who shall direct the driver to the appropriate fill or delivery point and supervise the delivery. He shall check that there is sufficient ullage to receive the complete load, monitor the delivery and ensure that after delivery all valves are properly closed and locked. The delivery driver should remain at the vehicle shut-off valve while the discharge is taking place. The Quarry Manager or his nominee shall sign the delivery note to confirm the product quantity received and that the delivery has been made correctly and safely.

Fuelling company vehicles, bowzers, generators and mobile plant – The driver shall check the ullage in the tank to receive the load, and remain at the delivery point at all times to monitor the delivery. After delivery he shall check that all valves are properly closed and locked. Drivers of lorries, vans and cars, not using the electronic key system, record the date, the vehicle registration and volume received in the office fuel log.

3.0 Spills

Any spillages occurring during delivery should be immediately dealt with as from the Emergency Response Procedure. Any waste materials generated as a result of this should be disposed of as waste.

OPERATION AND MAINTENANCE OF OIL INTERCEPTORS

(Where appropriate)

Oil interceptors must be inspected and maintained to ensure their effective operation. All interceptors shall be checked visually by the designated person for the presence of oil on an annual basis or after a recorded environmental spillage.

If oil is present

Three chambered interceptors – if any depth of oil is present in any of the interceptor chambers, it should be cleaned out ASAP by an approved special waste contractor using a vacuum tanker.

In the event of an interceptor failing and oil being released to the drain system, the Emergency Response Procedure should be followed.

Maintenance of oil interceptors

On a yearly basis, or as and when required, interceptors shall be cleaned by an approved and licensed waste contractor using a vacuum tanker as follows;

- Remove manhole cover(s)
- Remove surface oil or scum, being careful not to draw up uncontaminated water.
- Lower the vacuum tanker hose carefully to the base of the chamber and move around to draw off settled sediment or grit.
- At no time shall any personnel attempt to gain entry to the interceptor.
- At no time shall the level of water in the interceptor be lower than 50%.
- The unit shall be filled with clean water up to the invert level of the outlet pipe before recommencing interceptor operation after cleaning.
- Replace access shaft manhole cover(s) on completion of cleaning.

Disposal of wastes from interceptors

Any waste liquids or materials shall be disposed of as per the Waste Disposal Procedure.

Guidelines on Harmful Substances

a) Diesel, Gas Oil, Other Oils & Lubricants

Ref – Supplier Material Safety Data Sheet

b) Septic Tank

Introduction:

The septic tank should be located in an area where minimal activity occurs on the ground. The distribution box must be designed and constructed to ensure equal distribution among the various distribution pipes. Access manholes should be located at ground surface and covers should be visible and not allow the entry of surface water. Trees and plants are limited to a 3m distance from the tank and heavy machinery should not circulate over the percolation area

Useful References:

"Code of Practice: Wastewater Treatment Systems for Single Houses," EPA 2010.

Advantages of a Septic Tank:

- Septic tanks are a cost effective treatment system
- There is no need for external power requirements
- No noise emissions
- It is a natural treatment process
- It produces a high-quality effluent

Maintenance

In order to gain maximum performance from the septic tank regular maintenance is essential. The tank should be de-sludged at least once a year.

Maintenance is required when:

Scum is noticeable in the second chamber of the tank

Also, when the depth of the sludge in the second chamber is greater than 400mm.

c) Sealed Wastewater Tank

Where a sealed underground tank is used to collect wastewater, it shall be emptied as required by a licensed waste collection contractor.

SECTION 7 – ENVIRONMENTAL INSPECTION

- (i) Audits**
- (ii) Monitoring Reports**
- (iii) Environmental Action Plan**

SECTION 8 – TRAINING RECORD SHEET

Training Record – Drimoleague Concrete Works Ltd.

| Employee | Safety Training (Initial and date) | Environmental Awareness (Initial and date) | Operational Work Procedures (Initial and date) | Other (Reference, initial and date) |
|----------------|---------------------------------------|---|---|--|
| Eugene Murnane | ✓ | ✓ | ✓ | |
| Roy Kingston | ✓ (2015) | ✓ (2015) | ✓ (2015) | ✓ (appointed QM – 2015) |
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Other skills referenced:

Roy has a CSCS card for operating site plant.

SECTION 9 – PERMITS, PLANT LAYOUT etc.

This section contains records of Planning Permissions, Permits, Plant Layouts, Site Layout Maps etc as applicable to Ummera Gravel Pit.

SECTION 10 – COMMUNITY RELATIONS

The Aggregate Industry provides essential building materials for the social and economic development of the Country. Without aggregates, the built environment could not be enhanced with safe, structurally sound buildings for homes, schools, offices, shops and hospitals. In terms of protection of the environment, no water or wastewater treatment systems could be constructed. The Industry recognises that each activity and product it provides has a potential impact on the environment and the overall objective of ICF members is to minimise the environmental impacts and maximise the environmental enhancements at their sites. The ICF Environmental Award Competition is held on an annual basis for the membership to promote and showcase positive and proactive on-site environmental measures that have been taken.

This company will aim at all times to be a good neighbour and play its part in the community, for example giving presentations on their work to local groups, allowing schools and other local parties interested in their activity to visit the quarry pit or plant on conducted tours or local open days or by supporting local events.

Concerns in relation to new developments at this site will be examined and designed for, where practicable and reasonable, by consulting with the public at an early stage in the development process.

To ensure good environmental practice is achieved on-site, this company is committed to maintaining an on-site Environmental Management System (EMS). As part of this EMS, this company will maintain written records of all complaints and incidents, including the company's actions to investigate the problem, the causes and necessary mitigation measures required, as applicable. The following complaints record sheet shall be used for this purpose.

Complaint Record

1.0 Date of Complaint:_____

2.0 Time: _____

3.0 Complaint Method:_____

4.0 Taken by:_____

5.0 Name & Address of Complainant:

6.0 Nature of Complaint:

7.0 Detail Investigative Action Taken & Identify the Investigating Person

Detail Weather Conditions_____

Detail Results of Investigation

Detail any corrective & preventative action taken

Detail whether complainant was contacted

Signed: _____ **Date:** _____