

CLIENT: GOVERNMENT OF REPUBLIC OF KIRIBATI

PROJECT: KIRIBATI ROAD REHABILITATION
PROJECT

LOCATION: TARAWA, KIRIBATI

PROJECT NO.: 2536

Environmental Protection Instruction

DUST SUPPRESSION MANAGEMENT PLAN

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Revision History

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CONTENTS

1.0	INTRODUCTION	3
2.0	OBJECTIVES	3
3.0	TARGETS	3
4.0	RESPONSIBILITIES	3
5.0	LEGISLATIVE INFORMATION/REFERENCES	4
5.1	TRAFFIC ACT 2002	4
5.1.1	<i>Section 12</i>	4
5.1.2	<i>Section 18</i>	4
5.1.3	<i>Section 30</i>	4
5.1.4	<i>Division 3</i>	4
6.0	CONTROL METHODS	4
6.1	DUST MANAGEMENT	4
6.1.1	<i>Control site dust as follows</i>	4
6.1.2	<i>Control vehicle and plant emissions as follows</i>	4
6.1.3	<i>Staging Areas</i>	4
7.0	MONITORING	5
7.1	MANAGEMENT STRATEGIES AND MITIGATION	5
8.0	EMERGENCY RESPONSE	6
9.0	RECORDS	6

1.0 INTRODUCTION

Dust problems created by road traffic are a nuisance but not a very critical issue along the proposed road section, mainly because the traffic volumes are relatively small. However, to control unnecessary dust from the road section under construction, McConnell Dowell will spray water on exposed surfaces during dry periods within construction & maintenance zones.

This Dust Suppression Management Plan is prepared to satisfy the requirements of the Government of Republic of Kiribati during the implementation of contract conditions for Kiribati Road Rehabilitation Project. As stated, Part A Sub-clause 4.18 Condition under Protection of Environment, McConnell Dowell shall comply with all applicable national, local and environmental laws and regulations:

- Establish an operational system for managing environmental impacts;
- Carry out all of the monitoring and mitigation measures set forth in the Initial Environmental Impact Assessment and Environmental Management Plan;

McConnell Dowell shall submit monthly reports on the carrying out of such measures to “the Engineer”.

2.0 OBJECTIVES

- To minimize the potential for deterioration of the quality of the air due to dust or gasses from construction operations

3.0 TARGETS

Performance Criteria	Target	Measurement
Dust emission	<ul style="list-style-type: none"> - Zero complaints - Zero incidents - Minimal reduction in air quality during Project - Zero emission of harmful substances that are likely to create objectionable conditions for the public 	Complaints received Incident reports
Compliance with consent conditions	100%	No infringements or abatement notices

4.0 RESPONSIBILITIES

The Site Engineer and/or Superintendent are responsible for the continual monitoring of air quality indicators on the site.

5.0 LEGISLATIVE INFORMATION/REFERENCES

5.1 TRAFFIC ACT 2002

5.1.1 Section 12

Vehicles may only be registered if they are mechanically sound and if their exhaust systems control the emission of excessive exhaust fumes.

5.1.2 Section 18

Defect notices may be issued on a number of grounds including the emission of excessive exhaust fumes.

5.1.3 Section 30

The road rules listed in the Schedule apply in Kiribati.

5.1.4 Division 3

Provision is made in a number of sections for the issuing of penalty notices.

6.0 CONTROL METHODS

6.1 DUST MANAGEMENT

Dust Management applies to all of construction sites and haul roads. During construction, when dust may be generated, McConnell Dowell will monitor the worksite conditions and apply dust control measures, which include reducing construction traffic movements and spraying water on exposed areas.

- Spray water on exposed surfaces during dry periods especially near schools, hospitals, rural communities, etc.
- For occasional houses, dust fence barriers (using traditional material such as coconut leaves mat) commonly used in Tarawa might be considered.

6.1.1 Control site dust as follows

- Limit the extent of disturbed areas.
- Areas of exposed soil to be minimised.
- Restore disturbed areas as soon as practicable.
- Limit construction activities on windy days.
- Trucks and plant to follow designated haul roads, access roads.
- Refer also to Environmental Protection Instruction – **Soil Erosion, Sedimentation & Run-Off** (Document # 025-L001-2536) for additional controls for wind erosion and disbursement.

6.1.2 Control vehicle and plant emissions as follows

- All vehicles and plant to be regularly maintained. Daily Prestart checklist.
- Ensure appropriate emission control equipment is fitted.
- Minimise smoke & fume generation.

6.1.3 General Staging Areas

- Activities that will generate dust such as concrete batch plant, screening and asphalt batch plant are to be located as far as possible & practicable from dwellings.
- As far as possible, staging areas to be located where the prevailing wind will be offshore.
- Asphalt plant generates harmless odour. If complaints are received, they will be managed on a case by case basis with the aim of relieving the concerns of the people involved.

6.1.4 Asphalt Plant – Operation

- Setup 20ft containers in stockpile bins to control dust from prevailing winds
- Where stockpiles are located close to fence line, appropriate sheeting are to be erected to stop dust spilling over the boundary line
- Where required, water cart to be used to dampen the site to control dust caused by truck movements including haul road
- Regular checks on baghouse to insure all silicone bags are in good working order, bags are to be replaced immediately as to manufactures specification
- Heating Bitumen, insure chimney stack is appropriate cap fitting to control outlet release of fumes during heating process.
- Heating Bitumen in Half Height Containers – follow manufactures specification use correct heating mechanism i.e. Burner size, fuel etc.

7.0 MONITORING

- Visual inspection of the site while transport and construction equipment is in operation, paying particular attention to emission of fumes and generation of dust.
- Weekly Environmental Inspection 025 – F002 – 100

7.1 MANAGEMENT STRATEGIES AND MITIGATION

Project Phase/Activity	Management Strategies and Mitigation	Responsible Person/Unit
Gravel and Sand Stockpile areas.	<p>Cover smaller stockpiles if wind erosion is likely to occur</p> <p>Personnel working in high dust areas must wear the appropriate PPE's (dust mask, etc.) at all times</p> <p>Undertake work in a manner that would aim to, as much as possible, reduce the amount of generated dust</p>	McConnell Dowell (Site foreman and HSE Advisor)
Truck haul routes and areas subjected to high traffic.	<p>Water Trucks with sprinkler systems to travel haul routes and other areas as required.</p> <p>Personnel working in high dust areas must wear the appropriate PPE's (dust mask, etc.) at all times</p> <p>Undertake work in a manner</p>	McConnell Dowell (HSE Advisor, water truck drivers)

Project Phase/Activity	Management Strategies and Mitigation	Responsible Person/Unit
	that would aim to, as much as possible, reduce the amount of generated dust Keep vehicle speeds in order to reduce dust generation	
Transport of dried excavated material.	Keep vehicle speeds in order to reduce dust generation on unsealed road surface	McConnell Dowell (HSE Advisor, Truck Drivers)
Baghouse – Asphalt Plant	Routine check on baghouse shall be undertaken to insure bags are in working condition, Insure fans and compressor are in working condition	Asphalt Plant Operator / Supervisor/ HSE Advisor
Burner – Bitumen Heating Process	Follow manufactures guidelines for heating and transferring bitumen with the correct tools Insure appropriate end caps on each stack is fitted where appropriate	Asphalt Plant Operator / Supervisor/ HSE Advisor

8.0 EMERGENCY RESPONSE

In the event of an emergency:

- Cease any work causing atmospheric pollution.
- Review implementation and adequacy of control methods.
- Modify as necessary.

9.0 RECORDS

- Complaint Form
- Incident form
- Weekly Inspection Records
- Monthly Report