PLAN

Title:	Dust Management Plan (DMSB)

DOCUMENT CONTROL			
Doc. Reference	PL-AUS-DAR-029	**Function**	HSSEQ
Revision Date	24/11/2023	**Group Owner**	HSSEQ Manager Australasia
Rev. Number	7	**Group Approver**	Group Head of HSSEQ

APPROVED VARIANCE

There are currently no approved variances for this plan and is to comply with Australian rules and regulations.

DOCUMENT REFERENCES

Internal References	• GOP-HSSEQ-013 - Environmental Aspect Impacts Register • GOP-HSSEQ-014 - Environmental Review • GOP-HSSEQ-024 - Personal Protective Equipment • GOP-HSSEQ-039 - Monitoring and Measurement • GOP-HSSEQ-042 - Planned Inspections • GOP-HSSEQ-046 - Service Improvement Process (SID) • GOP-HSSEQ-047 - Task Based Risk Assessment
External References	• Environmental Assessment Act • Environmental Protection and Biodiversity Conservation Act • Managing Work Environment and Facilities Codes of Practice • Public and Environmental Health Act • Waste Management and Pollution Control Act • Work Health and Safety Regulations and Act

DOCUMENT SCOPE / PURPOSE

ASCO Australia are committed to ensuring Air Quality is maintained and monitored during all operations within the Darwin Marine Supply Base, air quality will be continually monitored and controls put in place and monitored to ensure all AIR Quality issues can be appropriately monitored and communicated to adjacent land users. The Purpose of the ASCO Dust Management Plan is to provide best management strategies for dust control and provide an approved monitoring program, identify key issues and areas of concern and implement appropriate controls.

REVISION HISTORY

Rev	Date	Comment
0	29/09/2015	Creation of procedure
1	29/08/2016	General Review
2	21/01/2018	New Document Template and General Review
3	28/05/2020	General Review
4	30/05/2021	General review
5	22/10/2021	General Review
6	20/12/2022	General Review
7	24/11/2023	General Review

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1.0 Purpose

The purpose of this Dust Management Plan is to set out ASCO Australia requirements for the suppression and monitoring of Dust in and around the DMSB facility to minimise the below;

- Minimal dust nuisance for adjacent land users
- Minimal dust complaints during activities
- Minimal dust clouds on adjacent roads
- No health & safety impacts on workers
- Minimal impacts on plant health.

2.0 Responsibility Summary

This document is relevant to the following roles:

Marine Supply Base Manager

- To oversee the implementation of this Plan.
- To monitor the activities of Facility Users to ensure compliance with this plan.

MSB Coordinator & Facility Coordinator

- Ensure competent advice and support is provided to Facility Users in meeting the requirements of this plan.
- To monitor controls in relation to this plan ensuring all Facility Users are compliant.
- To promptly report all non-conformances to BU Manager and HSSEQ Department.

HSSEQ Department

- To review update and implement all changes to this plan.
- To monitor all DMSB personnel and Facility users in relation to compliance with this procedure
- Carry out site assessments in relation to this plan.

All Personnel

- Will cooperate and assist with the Plan.
- To follow all instruction in relation to this plan
- To promptly report all non-conformances to DMSB Management.

3.0 Abbreviations & Definitions

Terms	Meaning
AIMS	ASCO Integrated Management Systems
Dust	fine, dry powder consisting of tiny particles of earth or waste matter lying on the ground or on surfaces or carried in the air
DMSB	Darwin Marine Supply Base
DP	Darwin Port
TBRA	Task Based Risk Assessment

4.0 Potential Impacts

In general, activities have the potential to generate dust containing particulate matter. Particulate matter is usually measured in PM10 and PM2.5. PM10 is particulate matter 10 micrometres or less in diameter, PM2.5 is particulate matter 2.5 micrometres or less in diameter. PM2.5 is generally described as fine particles. By way of comparison, a human hair is about 100 micrometres, so roughly 40 fine particles could be placed on its width (source Australian Government NPI website).

The following sources can impact on air quality:

- Plant & vehicles using access roads.
- Plant conducting operations.
- Wind movement
- Loading, hauling and unloading activities.
- General operations
- Exhaust emissions from machinery, vehicles and generators entering the atmosphere.
- Potential for fire/ smoke.

5.0 Adjacent Land Users

Dust can result in a serious nuisance and loss of amenity for adjacent land users, especially during windy conditions. Examples of 'nuisance' include dust deposition on surfaces (offices, vehicles) and noticeable health effects for asthma sufferers. Severe dust clouds can cause reduced visibility and increasing the risk for accidents for marine users and operators.

6.0 Effects of Dust

Dust can also impact on workers, and include respiratory issues (asthma), nuisance dust in cars/ offices, reduced visibility during operating machinery etc.

Dust can also settle on the leaves of sensitive native plants and cause impact on plant health and in severe cases, could cause plants to die. This is considered highly unlikely during operational activities of the Marine Supply Base.

7.0 Performance Criteria

- All Dust Reports/Complaints and dust suppression activities will be reviewed and recorded in line with the ASCO Service improvements procedure.
- ASCO DMSB Management will respond to Facility Concerns within 24 hours of receiving user or adjoining users reports.
- Maintain communications with all Facility and local land users during times of Dust effecting local area.
- Ensure dust levels are controlled during operational activities.
- Continual monitoring to ensure dust levels are controlled.
- Raise employee, contractor, and visitor awareness.

8.0 Management, Monitoring and Corrective Actions

Dust monitoring will be conducted to minimise disturbed and exposed areas of the Marine Supply Base. Site inspections will be conducted to ensure compliance to this plan.

All deliveries of material to Marine Supply Base which has the ability to contaminate air (dust release) must be suitably covered to ensure no release; water carts will be on hand to ensure dampening can be conducted whenever required.

All areas of the Marine Supply Base will have appropriate signage to ensure traffic stays in designated areas and speed limits are followed.

- Machinery and vehicles will be monitored to ensure no running when not in use.
- Operating without excessive emissions
- Burning any material on Marine Supply Base Land is strictly prohibited.
- Mud and fuels will be delivered to site in sealed tankers and pumped to silos, providing a closed system to prevent dust emissions.
- When required water spray will be utilised to dampen dust to eliminate/control exposure.

9.0 Monitoring

Ongoing monitoring of dust will be conducted primarily utilising the daily site inspection process, all findings will be noted and communicated to Darwin HSSEQ department. HSSEQ department will review and in consultation with Facility users, adjoining land users and Darwin Port to determine immediate and long terms controls.

Air Sampler equipment (HVAS) may be utilised if required within the Marine Supply Base Dependant on severity and observations. Measures PM10 levels—PM=particulate matter less than 10 microns in length. Measured in ug/m3 both on a 24hr cycle and annually. All measurement recording and monitoring will be undertaken using approved territory methods and all monitoring will be monitored by the Darwin HSSEQ Department.

10.0 Awareness

All Facility Users will receive a full briefing during periods of time where dust levels are affecting Facility users' operational activities or interactions. DMSB will use various methods to communicate;

- HSSEQ meeting
- Toolbox
- Site specific Stand down for safety

Consultation will also take place between ASCO DMSB representative and users to ensure suitable and sufficient measures are installed to ensure compliance with any personnel specific medical or allergic conditions.

11.0 Personal Protective Equipment (PPE)

Darwin HSSEQ Department will carry out risk assessments for operational activates within the Marine supply base to help identify PPE requirements within operational areas, these risk assessments will assist in ensuring suitable and sufficient PPE measures are in place.

12.0 Non-Conformances

All non-conformances, objectives and performance standards not maintained will be investigated utilising the ASCO GOP-HSSEQ-046 Service Improvement Process (SID) to ensure all non-conformances are investigated and suitable measures imposed to ensure satisfactory outcome.

13.0 Monitor and Review

The DMSB Dust Management Plan will continually be monitored to ensure full compliance with local and territory legislations, and as a minimum a full review will be conducted annually by the HSSEQ Department and/or DMSB management team to ensure compliance.

Appendix 1 Plan of Control, Dust and Air Quality

Controls	Monitoring	Corrective actions
• Ensure that all staff are aware of potential dust issues and controls	• Regular ASCO and user's communications • Daily/weekly site inspection	• If dust becomes an issue, ensure that dust becomes a primary discussion point in Facility communications. • Keep all adjacent land users fully updated on all issues. • Contact local environmental control to discuss/possible resolution advise.
• Inspections of dust releases and associated control measures	• Daily/weekly site inspection Environmental monitoring and auditing • Dust monitoring system to ensure safe operating. levels	• Water truck use if required. • Implement additional dust control measures as appropriate, such as additional water trucks, water sprays etc.
• Vehicle movements on unsealed areas/ roads are kept to a minimum, to reduce dust releases from vehicle movements. • Speed limit of 10km/hr for all vehicles onsite to reduce dust releases from vehicle movements. • Ensure access roads are in good repair	• Daily/weekly site inspection Environmental monitoring and auditing • Dust monitoring system to ensure safe operating levels	• Discuss in Facility Communications meeting and health and safety meetings. • Discuss with personnel involved
• Use a water truck when required for dust suppression on all areas that can cause dust within the DMSB. Also, control of speed on-site to minimise dust (10 km/hr). • Ensure good housekeeping on site and during DMSB activities	• Daily inspections and supervision • Daily/weekly site inspections • Environmental monitoring and auditing • Availably of water truck when required. • Dust monitoring system to ensure safe operating levels.	• Use of water truck if required. • Introduce and enforce a suitable speed limit for the work site (10kph)

• External and internal audits of the DMSB to audit dust management practices, including review of objectives	• Environmental monitoring and auditing	• Undertake audits as required
• Regular maintenance of all machinery to ensure that exhaust systems/ mufflers on plant are functional. • All dust emission equipment is operating and functioning correctly	• ASCO daily prestart checklist on all plant • Regular maintenance schedule in place • Service schedule in place	• Machinery is maintained, and if malfunctioning or if excessive smoke is observed, repairs to be undertaken.