EMS0004

Operational Air Quality Management Plan

Borg Panels

124 Lowes Mount Road, Oberon NSW

Borg Panels Pty Ltd

21 September 2021

This document should be read in conjunction with EMS0001 Operational Environment Management Plan

Revision History

Rev No.	Revision Date	Author / Position	Details	Authorised	
				Name / Position	Signature
0	10/11/17	Carly McCormack Planning and Environmental Officer	Draft	Victor Bendevski Environmental and Regulatory Compliance	
1	27/11/17	Carly McCormack Planning and Environmental Officer	Final Draft	Victor Bendevski Environmental and Regulatory Compliance	
2	28/11/17	Carly McCormack Planning and Environmental Officer	Final	Aleks Todoroski Todoroski Air Sciences	
3	02/11/18	Jacqui Blomberg Environmental Manager	Review as per SSD7016 C10(d)	Victor Bendevski Environmental and Regulatory Compliance	
4	11/04/19	Jacqui Blomberg Environmental Manager	Review as per SSD7016 C10(a)	Victor Bendevski Environmental and Regulatory Compliance	
5	23/03/20	J Blomberg Environmental Manager	Update as per SSD7016 B6	V Bendevski Environmental and Regulatory Compliance	
6	10/02/21	J Blomberg Environmental Manager	Review as per SSD7016 C10(a) Update to sections 1.1, 2.2, 2.4, 3.5, 6.1, 7.2.1, 7.3.1	V Bendevski Environmental and Regulatory Compliance	
7	21/10/2021	A Brady Environmental Manager	Review as per SSD7016 C10 (b) & (d). No updates necessary.	V Bendevski Environmental and Regulatory Compliance	

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1 Introduction

1.1 Background

Borg Panels operates a medium density fibreboard (MDF) and particleboard facility in Oberon NSW manufacturing a range of Customwood MDF and particleboard products including:

- Standard MDF;
- Moisture resistant MDF;
- E0 (low formaldehyde emitting) MDF;
- Ultraprime MDF mouldings;
- Standard particleboard;
- Moisture resistance particleboard;
- Decorative laminated MDF and particleboard; and
- Treated paper for the lamination of MDF and particleboard

On 29 May 2017 Development Consent SSD 7016 was granted by the Minister for Planning to construct a particleboard manufacturing facility, modify the existing MDF manufacturing facility and undertake general site works (the Project) at the existing site located at 124 Lowes Mount Road, Oberon.

Conditions contained within the Consent require Borg to provide for the ongoing environmental management of the Development. Though initially developed to satisfy conditions B5, C4 and C9, and updated to satisfy condition B6, this Operational Air Quality Management Plan has been updated as per condition C10(a) which states that the Plan is to be reviewed and if necessary revised due to the approval of a modification to SSD 7016.

1.2 Local Setting

As described in the *Air Quality Impact Assessment* (Todoroski Air Sciences, February 2017), the facility is situated in an industrial precinct directly north of the township of Oberon, located approximately 39km southeast of Bathurst and approximately 36km southwest of Lithgow. The surrounding land use in the wider area is characterised as predominantly agricultural land, with residential areas of Oberon to the south of the industrial precinct.

Figure 1 presents the location of Borg Panels in relation to the potentially most affected sensitive receptors identified in the *Assessment.* Also shown are the other facilities in the industrial precinct that are similar in nature to Borg Panels and include Woodchem, Structaflor and Highland Pine Products.

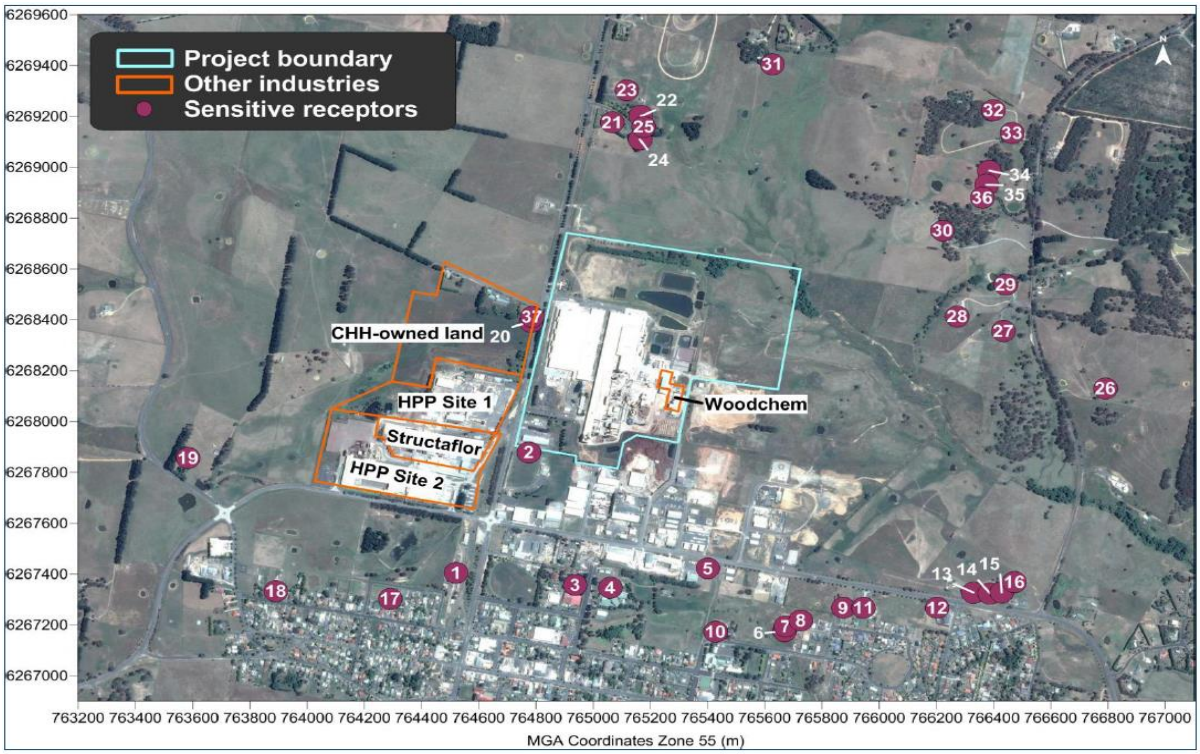

Figure 1 – Facility Location (Source: Todoroski Air Sciences, February 2017)

Figure 2 presents a pseudo three-dimensional (3D) visualisation of the topography in the area. The facility is located at a high altitude with dipping complex terrain sloping down to the nearby creeks and up to some receptor locations. The terrain features of the surrounding area would have an effect on the local wind distribution patterns and flows (Todoroski Air Sciences, February 2017).

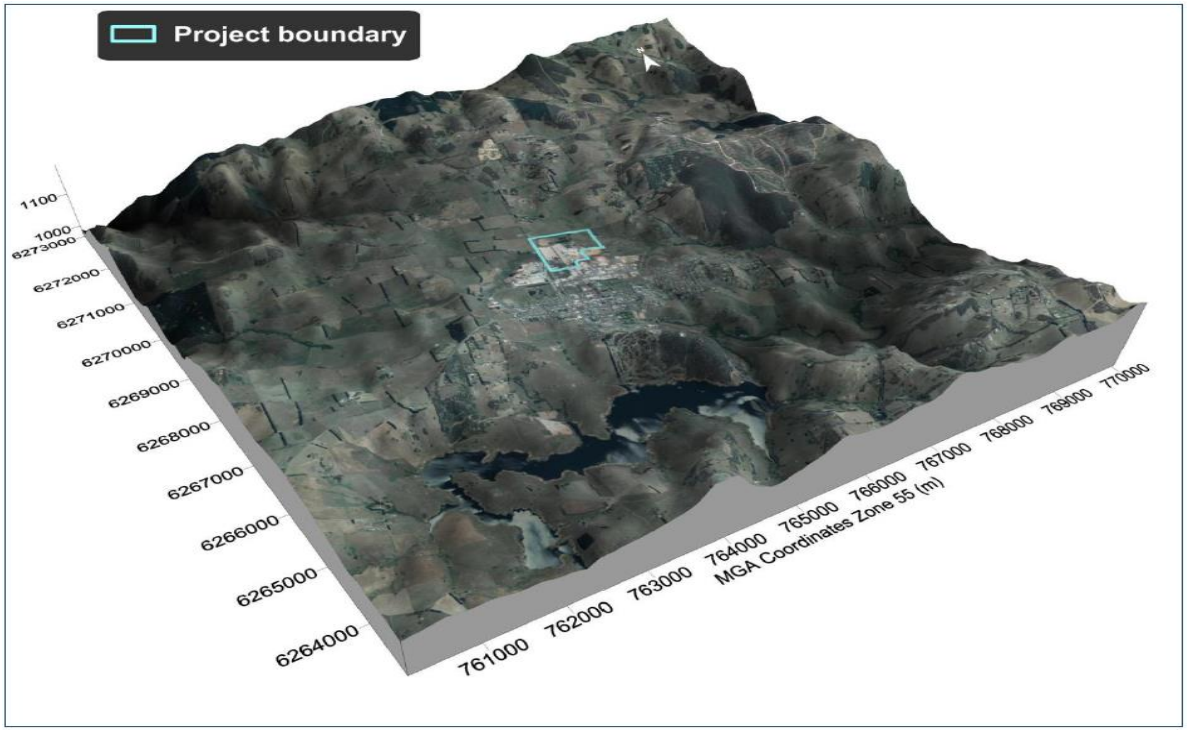

Figure 2 – Representative View of the Surrounding Topography (Source: Todoroski Air Sciences, February 2017)

1.4 Structure of this Management Plan

This Operational Air Quality Management Plan (OAQMP) has been developed to manage air emissions at the Oberon facility and to satisfy the requirements set out in Conditions B5, B6 and C9 of Development Consent SSD 7016, and includes information on the following:

- Section 2 – Legislative and Regulatory Compliance
- Section 3 – Air Quality Criteria
- Section 4 – Emissions
- Section 5 – Baseline Air Quality Data
- Section 6 – Management Measures
- Section 7 – Air Quality Monitoring
- Section 8 – Contingency Plan for Unpredicted Impacts
- Section 9 – Reporting
- Section 10 – OAQMP Review
- Section 11 – References

1.5 Consultation

In accordance with condition C4, the OAQMP (dated 28 November 2017) was provided to the EPA for review and consultation and submitted to the Secretary of the Department of Planning and Environment (DP&E) for approval on 29 November 2017. DP&E were satisfied that the OAQMP met with the terms of the relevant conditions of consent and issued approval on 21 December 2017.

As required under condition B6, the OAQMP was re-submitted to the EPA and the Secretary on 23 March 2020. As per SSD 7016 Condition C10, subsequent revised versions of the OAQMP will be submitted to the Secretary for approval as is necessary.

1.6 Training

Training and Assessment Manual *EMS0019 Environmental Standard Awareness Air* has been developed and will be delivered to all Supervisors and Operators on site. The Standard outlines Borg employee's responsibilities to assist with managing potential pollution to air across the site, how to maintain regulatory compliance and mitigate against any nuisance to the local community. Training records are maintained in DataStation, Borg's information management system.

2 Legislative and Regulatory Compliance

This OAQMP has been developed to ensure compliance with the requirements of the *Protection of the Environment Operations Act 1997* (POEO Act) and other relevant legislation as listed below.

2.1 Relevant Legislation

Key environmental legislation relating to air quality management for the operation of the facility includes:

- *Protection of the Environment Operations Act 1997;*
- Protection of the Environment Operations (Clean Air) Regulation 2010;
- *National Environment Protection Council (NEPC) Act 1994;* and
- *Environmental Planning and Assessment Amendment Act 2017*

2.2 Conditions of Consent

Borg Panels operations are subject to the conditions contained in Development Consent SSD 7016 dated 29 May 2017, and the following modifications:

- SSD 7016 MOD 1 – site layout changes (approved 20 November 2018)
- SSD 7016 MOD 2 – installation of an electricity generation gas turbine and ancillary equipment (approved 29 November 2019)
- SSD 7016 MOD 3 - additional materials handling equipment, extension to northern warehouse, changes to the site surface water system and construction of further hardstand (approved 22 May 2020)

No additional conditions specific to air quality were included in MOD 1, MOD 2, or MOD 3.

The specific requirements for an OAQMP (Schedule 2, Condition B5 and B6) and general requirements for environmental management plans (Schedule 2, Condition C9) are detailed in **Table 1**.

Table 1 – Development Consent Conditions

No.	Requirement	Document Ref.
	AIR QUALITY	
	Operational Air Quality Management Plan	
B5.	Within 6 months of the date of this consent, the Applicant must prepare an Operational Air Quality Management Plan (OAQMP) for the Existing Development to manage air quality to the satisfaction of the Secretary. The OAQMP must form part of the OEMP required by Condition C4 and be prepared in accordance with Condition C9. The OAQMP must:	This Plan
	a) be prepared by a suitably qualified expert and be prepared in consultation with the EPA;	Revision History Section 1.5
	b) detail and rank all emissions from all sources of the Existing Development, including particulate and formaldehyde emissions;	Section 3 Section 4
	c) describe a program that is capable of evaluating the performance of the Existing Development and determining compliance with key performance indicators;	Section 7
	d) identify the control measures that will be implemented for each emission source;	Section 6
	e) outline options/strategies for reducing formaldehyde emissions;	Section 6.2
	f) nominate the following for each of the proposed controls: (i) key performance indicator; (ii) monitoring method; (iii) location, frequency and duration of monitoring; (iv) record keeping; (v) complaints register; (vi) response procedures; and (vii) compliance monitoring.	 Section 3 Section 7 Section 7 Section 9 Section 9 Section 8 Section 7

No.	Requirement	Document Ref.
B6	Prior to commencement of operation of the Project, the Applicant must update the OAQMP as required by Condition B5 to incorporate the Project and its management to the satisfaction of the Secretary. The updated plan must be prepared in accordance with the requirements of Condition B5 and must incorporate the following:	This Plan
	(a) details of emissions from all sources of the Development;	Section 3 Section 4
	(b) description of the air quality monitoring to measure the performance of the Development against this consent and the EPL; and	Section 7
	(c) description of any additional measures that would be implemented to ensure the Development complies with this consent and the EPL.	Section 6
	MANAGEMENT PLAN REQUIREMENTS	
C9	The Applicant must ensure that the environmental management plans required under Condition C4 of this consent are prepared by a suitably qualified person or persons in accordance with best practice and include:	
	a) detailed baseline data;	Section 5
	b) a description of: (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions); (ii) any relevant limits or performance measures/criteria; and (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Development or any management measures;	Section 2 Section 3 Section 6
	c) a description of the management measures that would be implemented to comply with the relevant statutory requirements, limits or performance measures/criteria;	Section 6
	d) a program to monitor and report on the: (i) impacts and environmental performance of the Development; and (ii) effectiveness of any management measures (see (c) above);	Section 9
	e) a contingency plan to manage any unpredicted impacts and their consequences;	Section 8
	f) a program to investigate and implement ways to improve the environmental performance of the Development over time;	Section 6
	g) a protocol for managing and reporting any: (i) incidents; (ii) complaints; (iii) non-compliances with statutory requirements; and (iv) exceedances of the impact assessment criteria and/or performance criteria; and	Section 9
	h) a protocol for periodic review of the plan.	Section 10

No.	Requirement	Document Ref.
	Note: *These requirements also apply to the preparation or updates of management plans for the Existing Development and the Project.*	

2.3 Development Consent SSD 7016 Mitigation Measures

Appendix B Applicant's Management and Mitigation Measures to Development Consent SSD 7016 details the reasonable and practical measures to avoid or minimise impacts to the environment that may arise as a result of the Project. There are no mitigation measures relating to the Existing Development as unmodified.

2.4 Environment Protection Licence

Environment Protection Licence 3035 (EPL 3035) specifies air emission discharge points, air concentration limits and monitoring requirements for operation of the Existing Development and the Project.

Variation to EPL 3035 (licence variation date 4 September 2019) includes for the following variations relating to air quality and the Project:

- The addition of new licence discharge and monitoring points 29, 30, 31 and 32
- The renaming of licence point 27 to better reflect its configuration
- The removal of redundant licence point 13 and associated monitoring requirements
- The removal of monitoring requirements for points 11 and 17 (and removal of volatile organic compound monitoring from points 7, 8, 9 and 10
- The removal of monitoring requirements for dormant licence discharge points 18 and 19
- The addition of monitoring conditions for licence points 29, 30, 31 and 32
- The addition of a Special Condition E1.1 relating to the trial of the receipt, storage and processing of Urban Wood Residue in the particleboard factory at the premises

Post EPA review of SSD 7016 Cogen Plant Post Commissioning Report v.2 (condition B8 of consent) the EPA require Borg Panels to undertake annual emission monitoring at the two cogeneration units to demonstrate ongoing compliance with air quality standards. Therefore, two additional monitoring/discharge points (EPA ID. 33 and 34) were added to EPL 3035.

3 Air Quality Criteria

Air quality criteria are benchmarks set to protect the general health and amenity of the community in relation to air quality.

3.1 Approved Methods for the Modelling and Assessment of Air Pollutants in NSW

Air quality goals relevant to the operation of the facility as outlined in the NSW EPA *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (EPA 2016) are shown in **Table 1**.

Table 1 – NSW EPA Air Quality Impact Assessment Criteria

Pollutant	Averaging Period	Impact	Criteria
TSP	Annual	Total	90 µg/m^3
PM_{10}	Annual	Total	30 µg/m^3

	24 hour	Total	25 µg/m^3
Deposited Dust	Annual	Incremental	2 g/m^2/month
		Total	4 g/m^2/month
NO_2	1-hour		246
	Annual		62
Formaldehyde	1-hour		21.8 (20*)

Source: EPA 2016

* The applicable criterion for formaldehyde is presented as 20 µg/m^3 at 25°C in the Approved Methods (EPA 2016). To be consistent with the other pollutant criteria (and hence the modelling results), the table above presents the criterion at 0°C which is 21.8 µg/m^3.

With the exception of formaldehyde, all other air pollutants are assessed against their applicable criteria using the maximum predicted concentrations at the sensitive receptors. For formaldehyde, the 99.9th percentile predicted concentrations are assessed against the criteria at or beyond the site boundary. The criteria outlined in **Table 1** are used for assessment against air dispersion modelling results for the site, which assesses potential air quality impacts in the air shed surrounding the site and estimates potential air emissions associated with the development.

3.2 National Environment Protection (Ambient Air Quality) Measure

The *National Environment Protection Council (NEPC) Act 1994* and subsequent amendments define the National Environment Protection Measures (NEPMs) as instruments for setting environmental objectives in Australia.

The Ambient Air Quality NEPM specifies national ambient air quality standards and goals for air pollutants including PM_{10} and $PM_{2.5}$. The standard for PM_{10} and $PM_{2.5}$ is outlined in **Table 2**. The Ambient Air Quality NEPM allows for exceedance above the 24-hour average criterion in exceptional events such as bush fires and regional dust storms. As with each of the NEPM goals, these apply to the average, or general exposure of a population, rather than to "hot spot" locations or to individual industry projects. The criteria in **Table 2** are used for assessment against air dispersion modelling results for the site.

Table 2 – Standard for PM_{10} and $PM_{2.5}$ Concentrations

Pollutant	Averaging Period	Maximum Concentration (µg/m^3)
PM_{10}	24 hour	50
	Annual	25
$PM_{2.5}$	24 hour	25
	Annual	8

Source: NEPC, 2016

3.3 World Health Organisation Guidelines

Table 3 presents the formaldehyde guideline recommended by the World Health Organisation (WHO) to prevent sensory irritation in the general public. The WHO Guideline is based on current knowledge of health impacts and is generally less stringent than the NSW EPA Criterion. The criteria outlined in **Table 3** are used for assessment against air dispersion modelling results for the site.

Table 3 – Applicable Air Quality Guideline for Formaldehyde

Pollutant	Averaging Period	Guideline (µg/m^3)
Formaldehyde	30-minute	100

Source: WHO, 2010

3.4 Protection of the Environment Operations (Clean Air) Regulation 2010

The Protection of the Environment Operations (Clean Air) Regulation 2010 (POEO, 2010) outlines standards of concentrations for air emissions emitted from various plant. The emission limits applicable to the facility are summarised in **Table 4**. Emissions to air monitoring results are assessed against the criteria in **Table 4** for the existing plant to determine compliance with concentration limits.

Table 4 – Standards of Concentration for Scheduled Premises

Pollutant	Group 4 Standard of Concentration (mg/m^3)
	Existing Sources
TSP	250
NO_x as NO_2 equivalent	2,500

Source: POEO, 2010

3.5 NSW EPA Licence Limits

Environment Protection Licence 3035 contains air concentration limits for several of the existing emission points at the facility. The emission limits are summarised in **Table 5** and **Table 6**. Emissions to air monitoring results are assessed against the criteria in **Table 4** for the existing plant to determine compliance with concentration limits.

Table 5 – EPL 3035 Air Concentration Limits Point 7, 8, 9, 10

Pollutant	Units of Measure	100 Percentile Concentration Limit
Solid Particles	mg/m^3	200
Formaldehyde	mg/m^3	5

Table 6 – EPL 3035 Air Concentration Limits Points 33, 34

Pollutant	Units of Measure	100 Percentile Concentration Limit	Reference Conditions	Oxygen Correction	Averaging Period
Nitrogen Oxides	mg/m^3	450	Dry, 273K, 101.3kPa	5%	1 hour
Volatile Organic Compounds (as n-propane equivalents)	mg/m^3	20	Dry, 273K, 101.3kPa	5%	1 hour

All plant and equipment must comply with the relevant concentration standards listed in Schedule 2, 3 and 4 of the *Protection of the Environment Operations (Clean Air) Regulation 2010* if pollutant limits are not specified in the table above.

4 Emissions

The emissions considered in this Plan are those identified in the *Air Quality Impact Assessment* (Todoroski Air Sciences, February 2017) that have potential to affect the general health and amenity of the community and the surrounding environment.

4.1 Particulate Matter

Particulate matter consists of dust particles of varying size and composition. Air quality goals refer to measures of the total mass of all particles suspended in air defined as the Total Suspended Particulate matter (TSP). The upper size range for TSP is nominally taken to be 30 micrometres (µm) as in practice particles larger than 30 to 50µm will settle out of the atmosphere too quickly to be regarded as air pollutants.

Two sub-classes of TSP are also included in the air quality goals, namely PM_{10}, particulate matter with equivalent aerodynamic diameters of 10µm or less, and $PM_{2.5}$, particulate matter with equivalent aerodynamic diameters of 2.5µm or less.

Particulate matter, typically in the upper size range, that settles from the atmosphere and deposits on surfaces is characterised as deposited dust. The deposition of dust on surfaces is considered a nuisance and can adversely affect the amenity of an area by soiling property in the vicinity.

The greatest source of PM_{10} emissions are from the Conti 2 Stage 1 Dryer Cyclones and Jeldwen Press Exhaust Vents (dormant). The next highest emitters of PM_{10} emissions are the Conti 1 Dryer Cyclones and Conti 2 Heat Plant. The Conti 1 Heat Plant, press vents, baghouses and the WESP emit the least PM_{10} emissions.

Fugitive particulate matter emissions are also generated through the disturbance of soils and wood dust, and the chipping of raw wood and fuels for the heat plants.

4.2 Nitrogen Dioxide

Nitrogen Dioxide (NO_2) is one of a group of highly reactive gases known as oxides of nitrogen or nitrogen oxides (NO_x). Other nitrogen oxides include nitrous acid and nitric acid. NO_2 is used as the indicator for the larger group of nitrogen oxides. NO_2 is a by-product from the burning of fuel (United States Environment Protection Agency, September 2017).

NO_2 goals relevant to the operation of the facility as outlined in the NSW EPA document *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (EPA 2016) are outlined in **Section 3.1**.

NO_2 along with other NO_x compounds react with other chemicals in the air to form both particulate matter and ozone. The environmental effects of NO_2 and other NO_x include the formation of acid rain, reduced visibility and haze, and nutrient pollution in waterways (United States Environment Protection Agency, September 2017).

From an analysis of historical stack emissions monitoring data, the primary sources of NO_x emissions from the Borg Panels facility are from the Jeldwen press exhaust vents, heat plants and Conti 1 Dryer Cyclone. The Jeldwen plant is dormant and has not been operated since its purchase by Borg in 2012.

The press vents, baghouses and WESP are minor emitters of NO_x.

4.3 Formaldehyde

Formaldehyde is a colourless, flammable gas at room temperature and has a strong odour. Exposure to formaldehyde may cause adverse health effects, which can include irritation of the skin, eyes, nose, and throat. High levels of exposure may cause some types of cancers (United States Environment Protection Agency, September 2017). Formaldehyde is not a persistent pollutant and is readily broken down in air by sunlight, with a half-life of approximately 30-50 minutes.

Formaldehyde is emitted from the press vents and dryer cyclones, and originates from the setting by heat of the adhesive resins used in the manufacture of MDF and particleboard on-site.

From an analysis of historical stack emissions monitoring data, the primary sources of formaldehyde emissions from the Borg Panels facility are from the Conti 2 Stage 1 Dryer Cyclones, Conti 1 Dryer Cyclones and Conti 1 & 2 Press Vents.

The baghouses, WESP and Conti 1 & 2 Heat Plants are smaller emitters of formaldehyde.

4.4 Volatile Organic Compounds

Volatile organic compounds (VOCs) are a large group of organic chemicals that include any compound of carbon (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate). VOCs participate in atmospheric photochemical reactions that contribute to ozone formation, they play a role in formation of secondary organic aerosols, which are found in airborne particulate matter, and are known to be harmful to human health (United States Environment Protection Agency, September 2017).

Sources of VOC emissions at the Borg Panels facility are from the Conti 1 and Conti 2 Heat Plants, press exhaust vents, the WESP, the two Cogen units and the paper oven duct.

5 Baseline Air Quality Data

Baseline environmental air quality data collected from emissions monitoring and depositional dust monitoring for the period between 2008 to 2017 is summarised in the sections below. Also included is a summary of typical wind patterns for Oberon taken from data for period June 2016 to May 2017. **Section 7** of this Plan details the requirements for air quality monitoring at the Borg Panels facility.

5.1 Emissions Monitoring Data

Figures 3 – 7 provide stack emission monitoring results for EPA monitoring points for the period 2008 to 2017. Tables of the monitoring results from 2008 to 2017 are included in **Appendix A**.

5.1.1 Total Suspended Particulate Matter and PM_{10}

Conti 1 Heat Plant exceeded the Group 4 Standard of Concentration for TSP of 250 mg/m^3 in the 2013 and 2015 reporting years due to a fire in the multi-cyclones affecting their performance, as such, the data are considered spurious, and not representative of normal operation and hence are not plotted. The plant has since been repaired and recorded TSP emissions of 190 mg/m^3 in the 2015-16 reporting period, as shown.

In the 2016-17 reporting period the plant was modified to divert exhaust gas from Conti 1 Heat Plant back in to the Conti 1 production system.

EPA Identification Points 9 Conti 1Dryer Cyclone #1 (south), 10 Conti 1Dryer Cyclone #2 (north), 11 Conti 2 Heat Plant and 17 Conti 1 Heat Plant have an EPL air concentration limit for TSP of 200 mg/m^3. With the exception of the exceedance described above, all monitoring points complied with the EPL limits.

There are no operational limits in either the *POEO (Clean Air) Regulation 2010* or EPL 3035 for PM_{10} emissions for the facility.

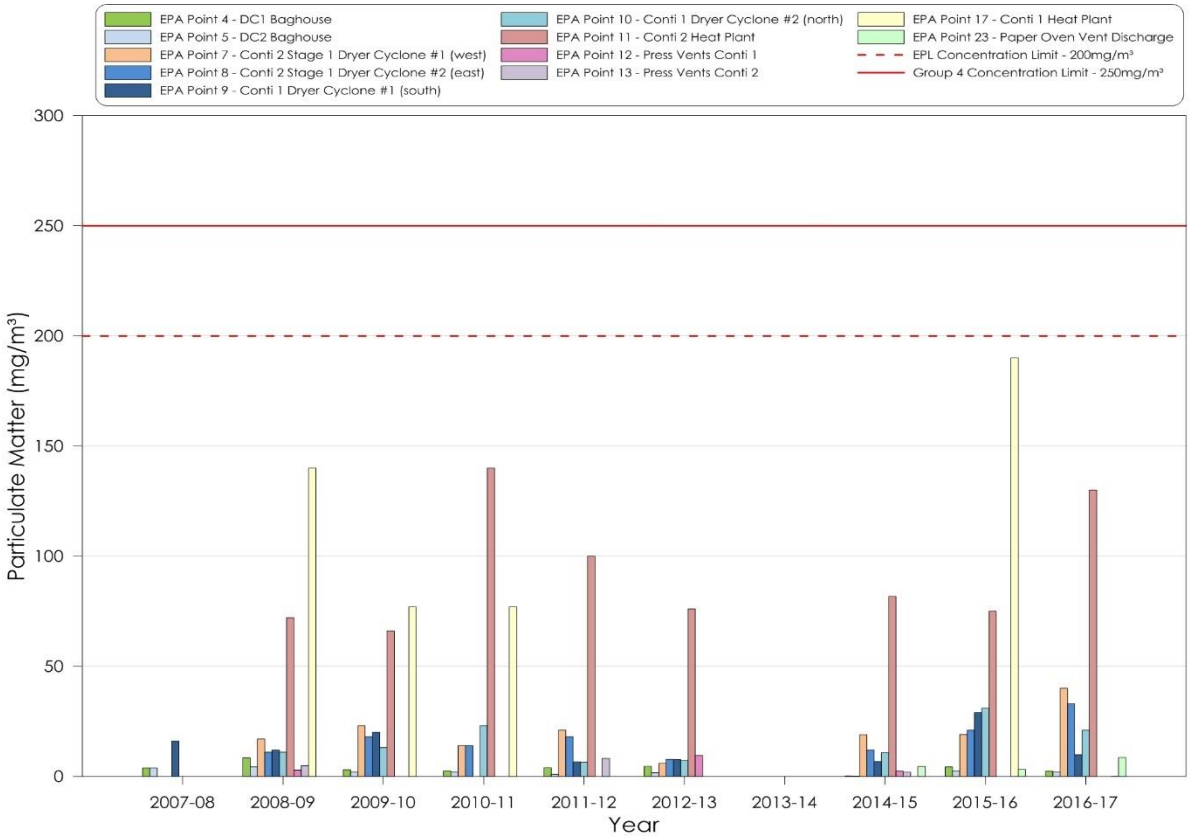

Figure 3 – Total Suspended Particulate Matter (TSP) Monitoring Results

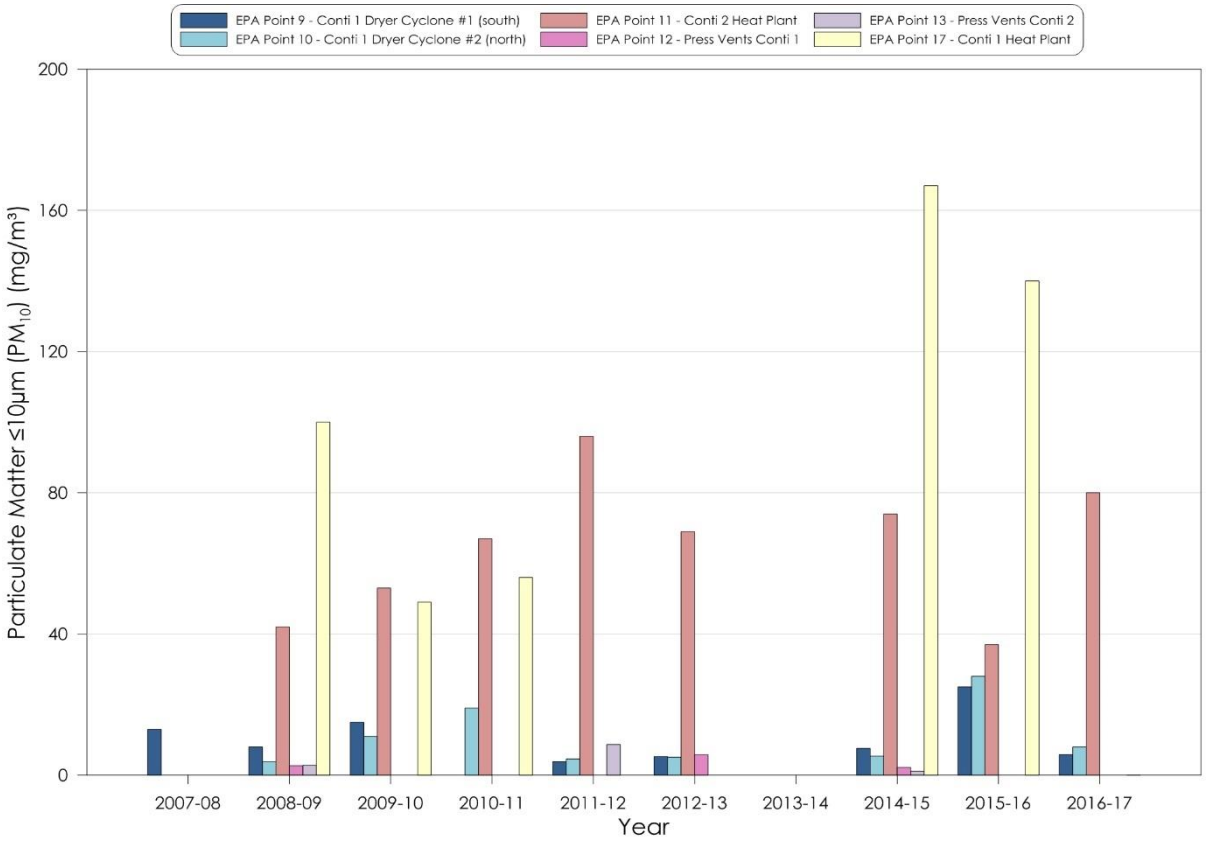

Figure 4 – PM_{10} Monitoring Results

5.1.2 Nitrogen Oxides

The *POEO (Clean Air) Regulation 2010* concentration limits for NO_x as NO_2 equivalent is 2,500 mg/m^3 for Group 4 plant. All monitoring points complied with the specified limits.

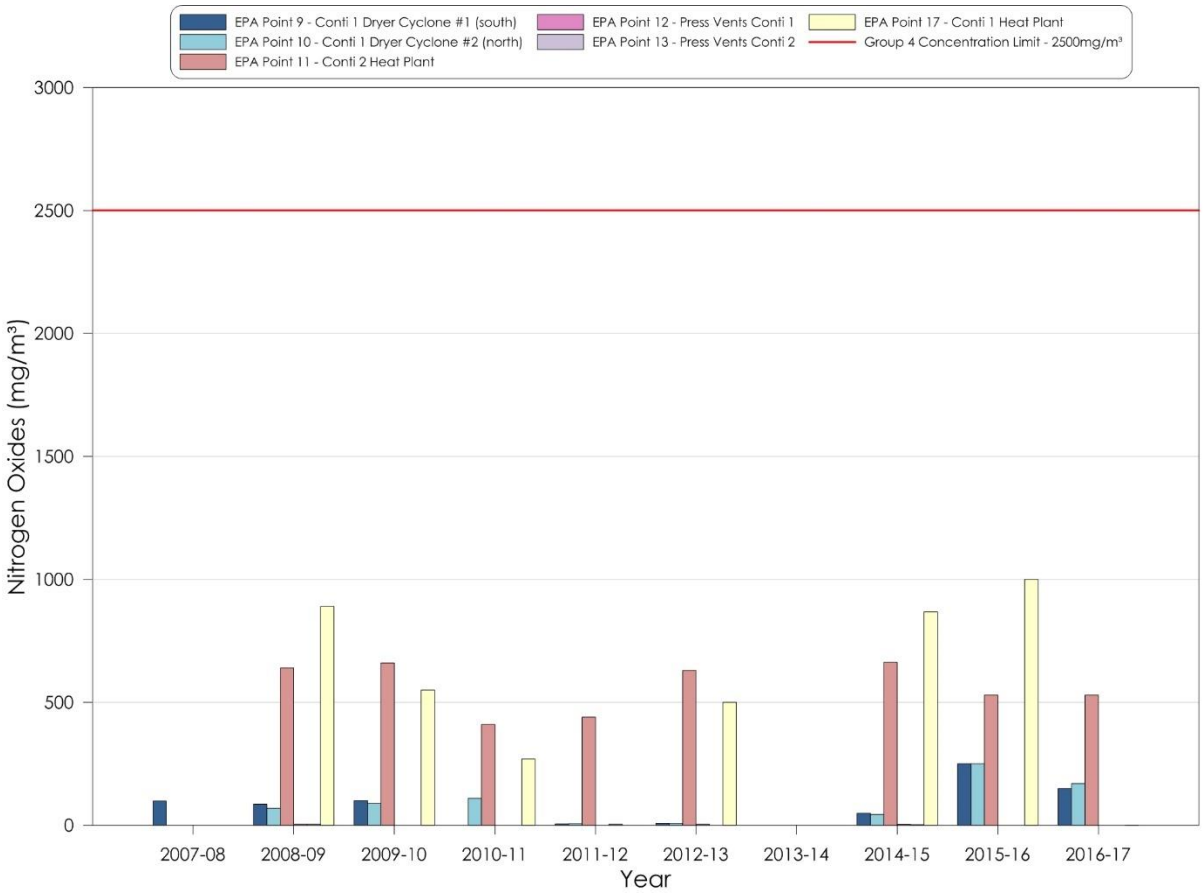

Figure 5 – NO_x Monitoring Results

5.1.3 Formaldehyde

EPA Identification Points 11 Conti 2 Heat Plant and 17 Conti 1 Heat Plant have an EPL air concentration limit for formaldehyde of 5 mg/m^3. In the 2011-12 reporting period Point 11 Conti 2 Heat Plant exceeded this limit with a result of 7.4 mg/m^3 for formaldehyde. This result is considered to be anomalous, and likely to be a measurement error. All other monitoring results for both heat plants complied with the EPL limits.

EPA Identification Point 23 Paper Oven Vent Discharge no longer requires monitoring as the flow has been redirected to the Conti 2 Heat Plant. Point 23 has been removed from EPL 3035.

While formaldehyde emissions are monitored at additional EPA Identification Points as presented in in **Figure 6**, no emission concentration limits are applicable to these additional monitoring locations.

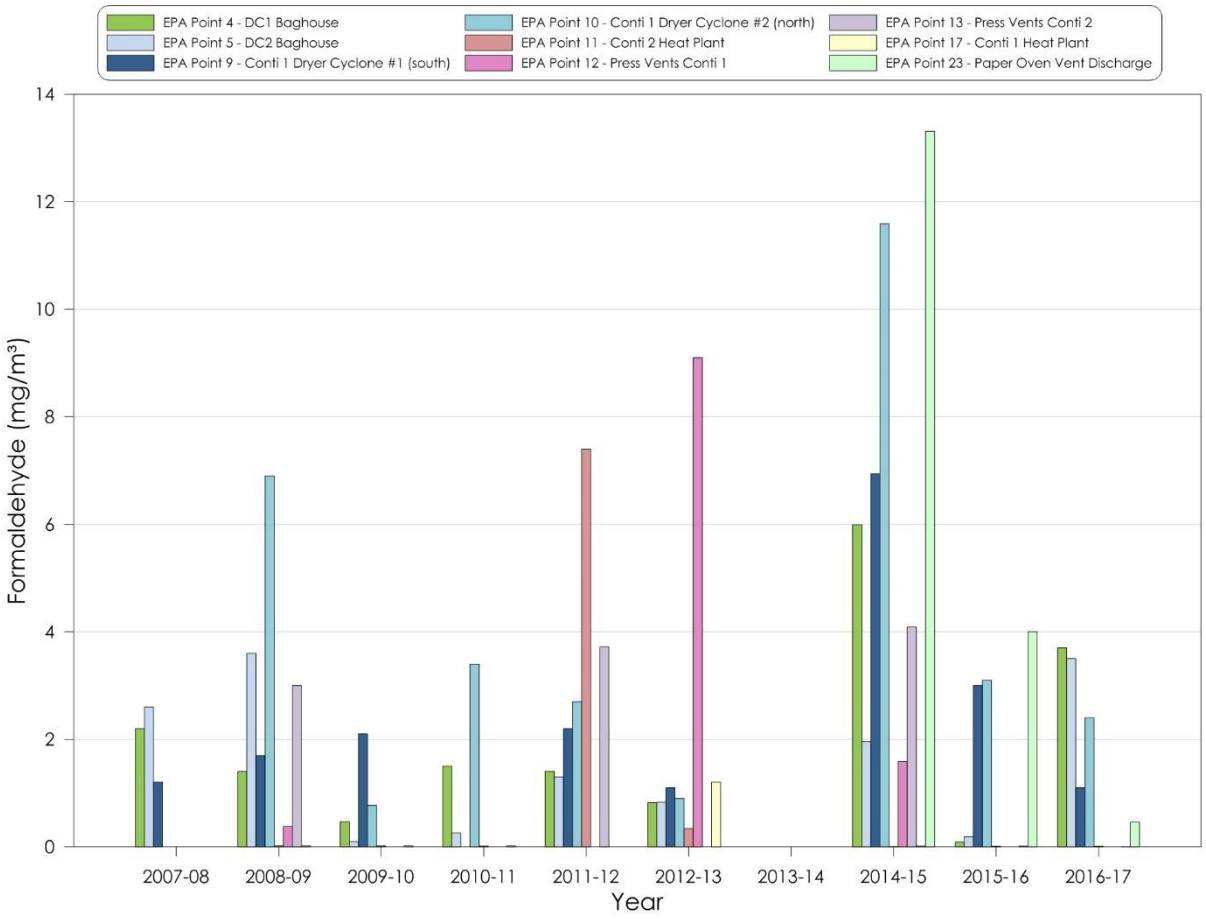

Figure 6 – Formaldehyde Monitoring Results

5.1.4 Volatile Organic Compounds

EPA Identification Points 9 Conti 1Dryer Cyclone #1 (south), 10 Conti 1Dryer Cyclone #2 (north), 11 Conti 2 Heat Plant and 17 Conti 1 Heat Plant have an EPL air concentration limit for volatile organic compounds of 10 mg/m^3. All monitoring locations complied with EPL limits for VOC emissions.

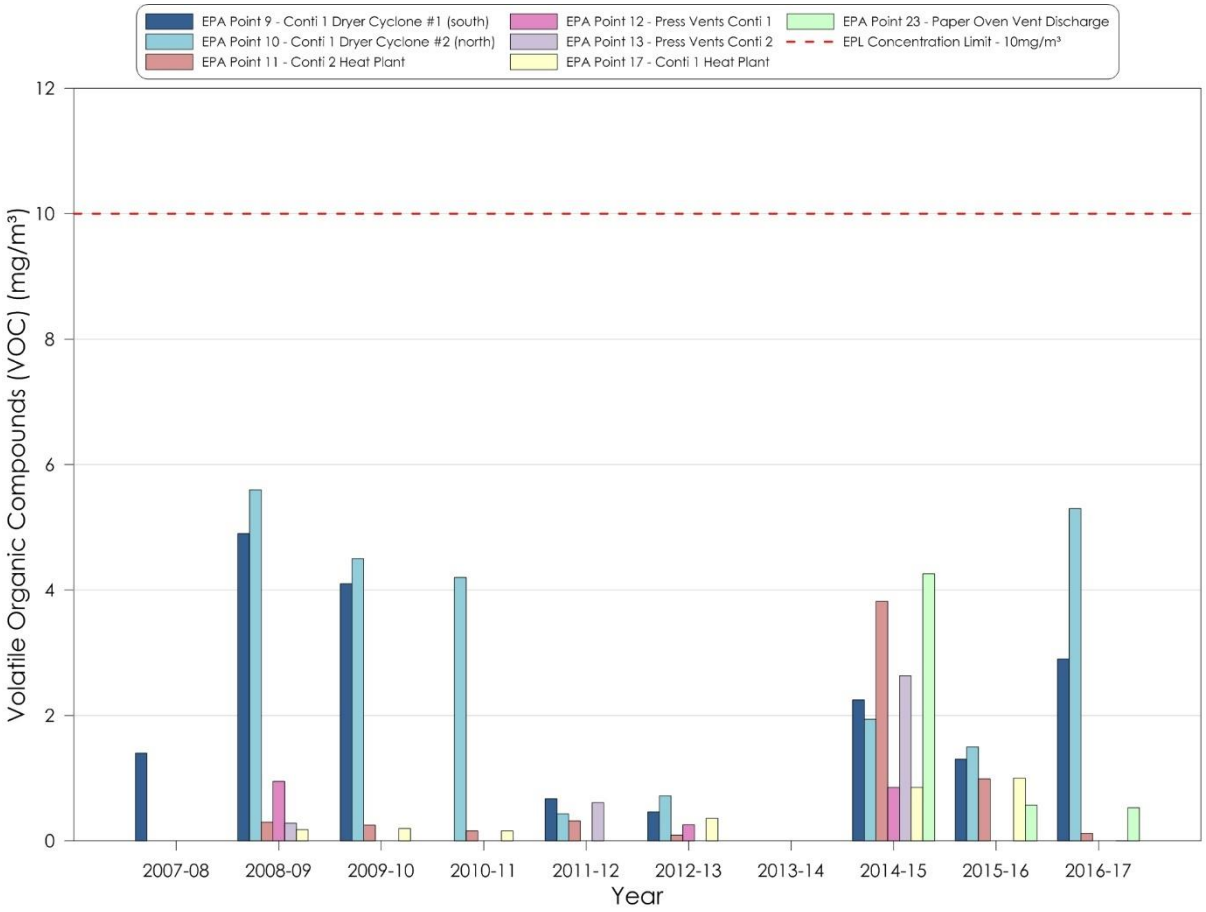

Figure 7 – Volatile Organic Compounds Monitoring Results

5.2 Depositional Dust Monitoring Data

Whilst there are no site limits, depositional dust monitoring is conducted to assist with site management. **Figure 8** shows depositional dust rolling averages and **Figure 9** shows depositional dust annual averages from 2015 when Borg Panels commenced depositional dust gauge monitoring, to 2017.

DDGs 1-4 (in blue colours) are located on-site. DDG 5 and DDG 6 (pink and red colours) are located at off-site sensitive receiver locations. See **Figure 11** in Section 7 for dust gauge locations.

DDG 1 is located within the operational boundary of the site immediately adjacent to an unsealed laydown area and in general proximity of an unsealed road. During the monitoring periods included in this Plan (i.e. 2015 – 2017) DDG 2 was located immediately adjacent an active construction site. Though the location of DDG 2 remains the same, the construction activities associated with this area were complete by November 2019.
Note that the dust deposition criterion does not apply to the on-site dust levels, only off-site levels.

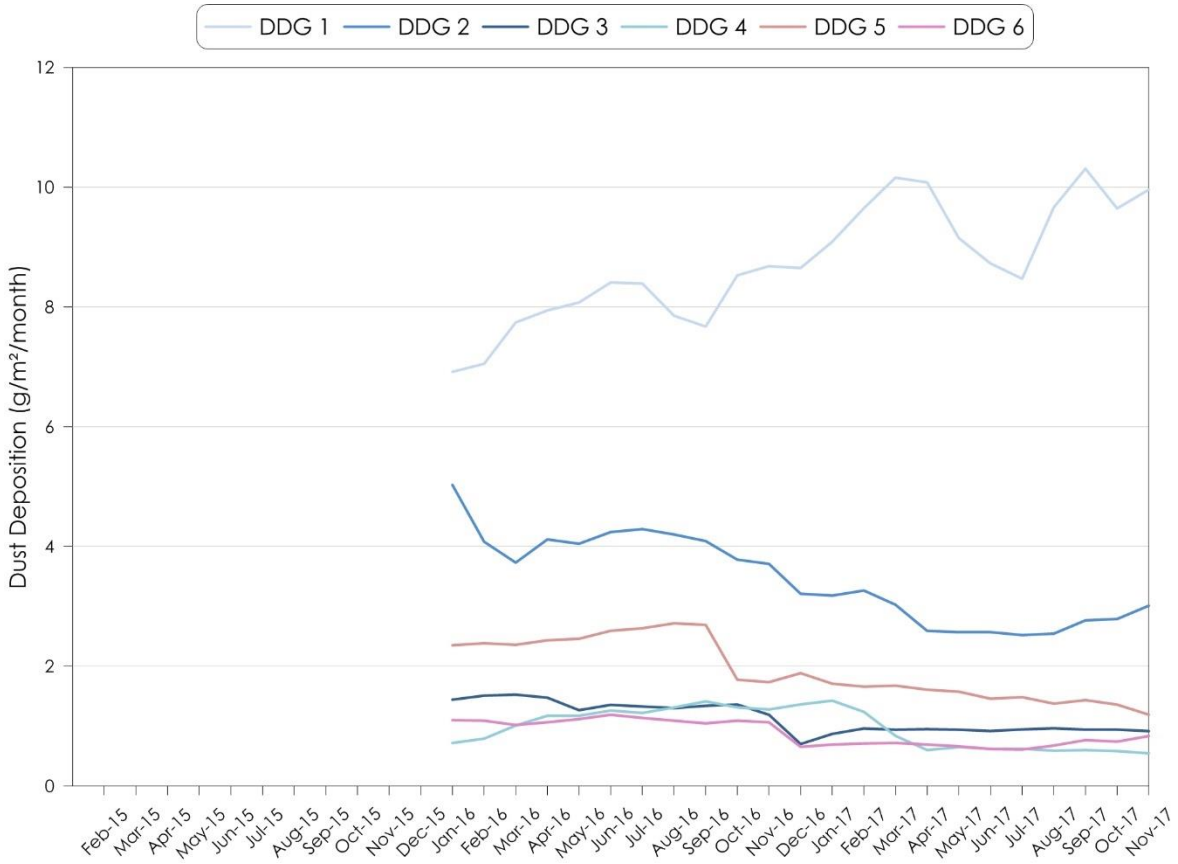

Figure 8 – Depositional Dust Rolling Averages

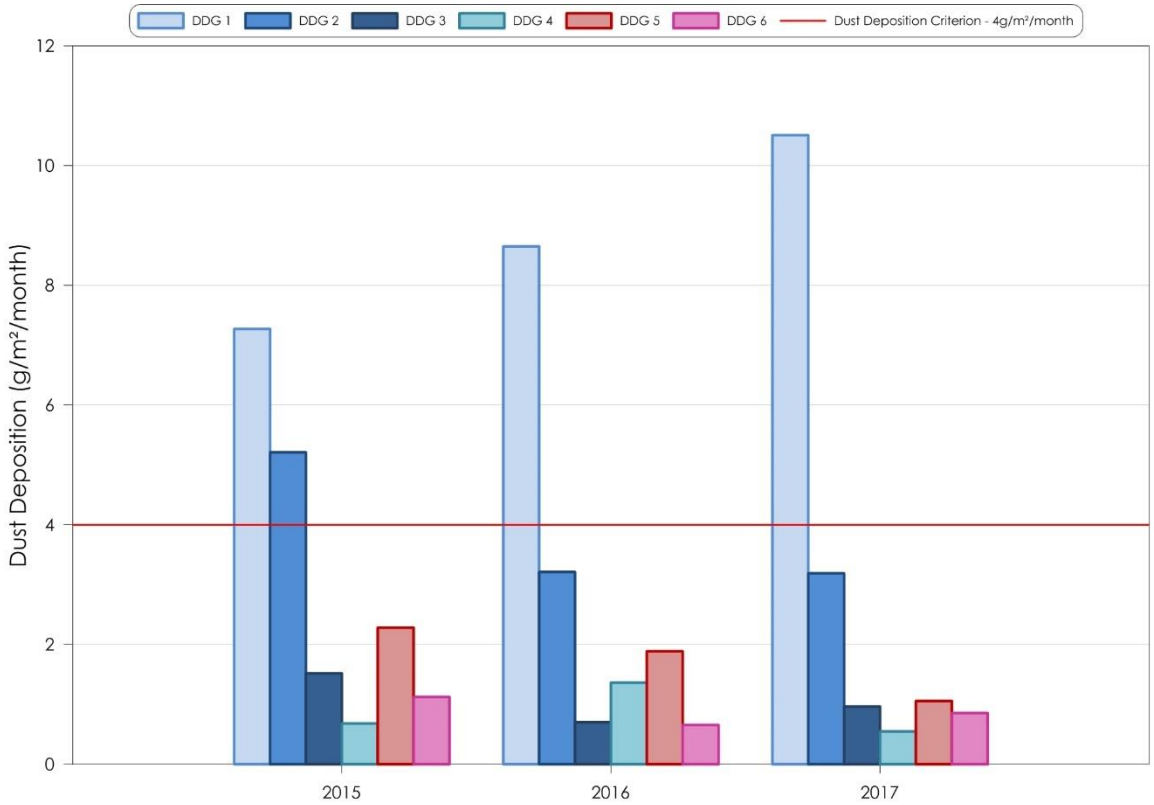

Figure 9 – Depositional Dust Annual Average Results (criterion applies to DDG 5 & 6)

5.3 Meteorological Monitoring

Meteorological monitoring is undertaken on-site using the site meteorological weather station (monitoring Point 26) in accordance with EPL 3035 requirements. Annual and seasonal wind roses prepared from data collected between June 2019 and May 2017 is presented in **Figure 10**. The wind roses indicate typical wind patterns for Oberon with winds predominantly along a west-west north west and east-east south east axis with few winds from the north and south quadrants.

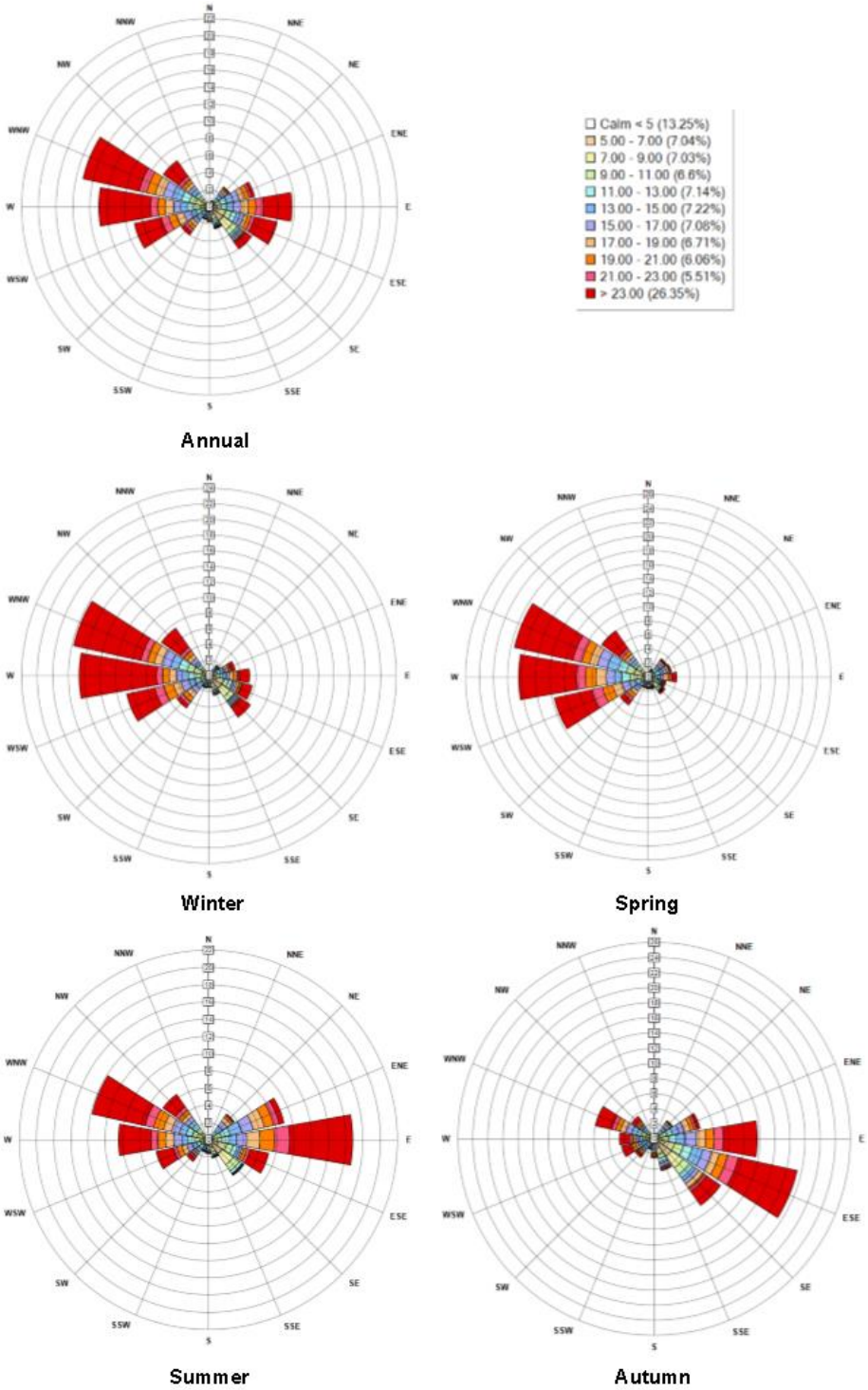

Figure 10 – Annual and Seasonal Wind roses for Borg Panels (June 2016 – May 2017)

6 Management Measures

6.1 Air Quality Management Measures

The air quality management measures described in this section are designed to minimise the impact of the operation's site activities on the surrounding environment. Air emissions are generally constant and are being emitted from a fixed point resulting from an established process. The primary measures to control air emissions for the facility are set out in **Table 7**.

Table 7 – Summary of Air Quality Mitigation Measures

EPA Identification Point No.	Location Description	Control measure (described further in Section 6.2, per pollutant controlled)
4	DC1 Baghouse	Differential pressure monitoring to indicate bag performance, failure or leak Resin formulation to minimise VOC emissions
5	DC2 Baghouse	Differential pressure monitoring to indicate bag performance, failure or leak Resin formulation to minimise VOC emissions
7	Conti 2 Stage 1 Dryer Cyclone #1 (west)	Cyclone particle separation to minimise emitted particulate Resin formulation to minimise VOC emissions Temperature to optimise clean combustion
8	Conti 2 Stage 1 Dryer Cyclone #2 (east)	Cyclone particle separation to minimise emitted particulate Resin formulation to minimise VOC emissions Temperature to optimise clean combustion
9	Conti 1 Dryer Cyclone #1 (south)	Cyclone particle separation to minimise emitted particulate Resin formulation to minimise VOC emissions Temperature to optimise clean combustion
10	Conti 1 Dryer Cyclone #2 (north)	Cyclone particle separation Resin formulation to minimise VOC emissions Temperature to optimise clean combustion
11	Conti 2 Heat Plant	Fuel type control. Fuels are chosen to ensure correct size, type and moisture level is maintained. Operational measures to limit furnace temperature. Cyclone particle separation to minimise emitted particulate
12	Press Vents Conti 1	Resin formulation to minimise VOC emissions
17	Conti 1 Heat Plant	Fuel type control. Fuels are chosen to ensure correct size, type and moisture level is maintained. Operational measures to limit furnace temperature Cyclone particle separation to minimise emitted particulate
18	Press exhaust vents discharge	Resin formulation to minimise VOC emissions
19	Dryer stack	Cyclone particle separation to minimise emitted particulate
20	Reject cyclone DC 11	Cyclone particle separation to minimise emitted particulate

EPA Identification Point No.	Location Description	Control measure (described further in Section 6.2, per pollutant controlled)
21	Reject cyclone DC 12	Cyclone particle separation to minimise emitted particulate
22	Reject cyclone DC 13	Cyclone particle separation to minimise emitted particulate
27	Combined Conti 2 Press Vent	Press vapour water scrubber to capture solid particles, water soluble VOC's and formaldehyde
29	Forming Line baghouse	Differential pressure monitoring to indicate bag performance, failure or leak Resin formulation to minimise VOC emissions
30	Form station baghouse	Differential pressure monitoring to indicate bag performance, failure or leak Resin formulation to minimise VOC emissions
31	Particleboard press extraction	Capture and direct emissions into scrubber oxidation system for treatment
32	Wet Electrostatic Precipitator (WESP)	Removes fine particles Reduces VOC emissions
33	Cogeneration Unit 1	Controlled combustion chamber temperature
34	Cogeneration Unit 2	Controlled combustion chamber temperature

6.2 Control Measures for Each Emission Source

Process control measures are implemented to reduce emissions to air. These measures incorporate various plant and process operational procedures, pollution control equipment, maintenance and monitoring regimes, as outlined below.

6.2.1 Particulate Matter (Total Solid Particles)

The main processes in the production of MDF that generate particulate matter emissions include drying of fibre following the addition of resin and wax, sanding and sawing of pressed board, and burning of wood fuels in the heat plants. The production of particleboard uses similar processes to MDF production. The following process control measures are implemented to reduce particulate matter emissions:

- Baghouse filtration used for particle or fibre conveying processes, which are low temperature and or not moisture laden.
- Cyclonic separation for large air flow volumes which are hot and or wet at the dryer cyclones, heat plants and reject cyclones.
- Site maintenance to control fugitive dusts, including manual and mechanical sweeping.
- Wet Electrostatic Precipitator (WESP) filtration device.
- Press fume extraction system replacing roof ventilators at Conti 2 press line.

6.2.2 Nitrogen Dioxide

NO_x emissions are generated from all site combustion activities, including operation of both heat plants, and in smaller volumes from gas burners around the site.

The following process control measures are implemented to reduce NO_x emissions:

- Furnace control methods including excess over fire air to control the formation of NO_x.

- Fuel type, quality and solid fuel size is controlled to assist in maintaining consistent combustion characteristics.
- Dedicated energy plant operators monitoring furnace temperature and operating conditions to optimise combustion and hence emissions.
- Press fume extraction system replacing roof ventilators at Conti 2 press line.

6.2.3 Formaldehyde Emissions

Formaldehyde emissions are generated from various activities around the site, these include drying of the resinated fibre, processing fibre and pressing of the board. Smaller quantities are generated in heat plant operation and as fugitive emissions.

The following process control measures are implemented to reduce the formaldehyde emissions:

- Resin reformulation is controlled to ensure free formaldehyde levels are low.
- Dryer temperatures are maintained low to reduce volatilization of formaldehyde from the polymer.
- Press temperatures are maintained at lower levels to reduce resin hydrolysis and escape of formaldehyde.
- Heat plants are operated to ensure maximum residence time ensuring complete oxidation of formaldehyde.
- WESP/scrubber system exposing gases to high temperatures resulting in the oxidation of formaldehyde.
- Press fume extraction system replacing roof ventilators at Conti 2 press line.

6.2.4 Volatile Organic Compounds

Volatile Organic Compounds are generated when naturally occurring light organic oils within the wood fibre are volatilised. Processes on site that generate VOCs include drying fibre and pressing of the board. Smaller quantities of VOCs are also generated in the heat plants. The following process control measures are implemented to reduce the VOC emissions:

- Low temperatures used in the fibre drying process to reduce quantity of VOCs escaping from the wood fibre.
- Heat Plant temperatures and residence times are maintained to ensure complete combustion of escaped VOCs.

7 Air Quality Monitoring

Borg Panels conduct air emissions monitoring to assess compliance with the approval criteria performance indicators and to meet the monitoring requirements of EPL 3035. Additionally, Borg Panels also monitor for depositional dust and meteorological conditions.

7.1 Monitoring Methods

7.1.1 Emissions to Air

Emissions to air monitoring is performed in accordance with the methodologies recommended by the NSW EPA document *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (EPA 2016) and the requirements of EPL 3035. USEPA Method GD-008 is the approved method for determining flow rate and sampling for particulate matter in cyclonic flow from licenced discharge points 7, 8, 9, 10.

7.1.2 Dust Deposition

Deposited dust is assessed as insoluble solids as defined by *Standards Australia AS/NZS 3580.10.1:2003: Methods for sampling and analysis of ambient air – Determination of particulate matter – Deposited matter – Gravimetric Method*. Samples are also analysed for ash residue and combustible matter to the Australian Standard to assist in determining dust sources.

7.1.3 Meteorological Monitoring

The site meteorological weather station is capable of continuously monitoring rainfall, relative humidity, sigma theta (the standard deviation of horizontal wind directions), temperature, wind direction and wind speed. This monitoring is conducted in accordance with the requirements of the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (EPA 2016).

7.2 Monitoring Locations

7.2.1 Emissions to Air

The locations of air emissions monitoring are listed in **Table 8**.

Table 8 – Location of Air Emissions Monitoring

EPA Identification Point No.	Location Description
4	DC1 Baghouse
5	DC2 Baghouse
7	Conti 2 Stage 1 Dryer Cyclone #1 (west)
8	Conti 2 Stage 1 Dryer Cyclone #2 (east)
9	Conti 1 Dryer Cyclone #1 (south)
10	Conti 1 Dryer Cyclone #2 (north)
11	Conti 2 Heat Plant
12	Press Vents Conti 1
17	Conti 1 Heat Plant
18	Press exhaust vents
19	Dryer stack
20	Reject cyclone DC 11
21	Reject cyclone DC 12
22	Reject cyclone DC 13
27	Combined Stack venting Conti 2 Press Vents and DC1 and DC2 Baghouses
29	Forming Line baghouse
30	Form station baghouse
31	Particleboard press extraction
32	Wet Electrostatic Precipitator (WESP)
33	Cogeneration Unit 1
34	Cogeneration Unit 2

While EPA Identification Points 20, 21 and 22 (reject cyclones) are recognised as discharge points in EPL 3035, there is no requirement to monitor the concentration of pollutants discharged at these points as this plant is dormant.

Redundant EPA Identification Point 23 was removed from EPL 3035 in the licence variation on 9 October 2017. Exhaust from Point 23 Paper Oven Vent Discharge is ducted to Point 11 Conti 2 Heat Plant.

Variations to EPL dated 4 September:

- Removal of redundant licence Point 13 and associated monitoring requirements;
- The addition of new licence discharge and monitoring points 29, 30, 31 and 32, and the addition of monitoring conditions for these points;
- The renaming of 'Particulate' matter to 'Total Solid Particles';
- The removal of monitoring requirements for points 11 and 17 (and removal of volatile organic compound monitoring from points 7, 8, 9 and 10); and
- The removal of monitoring requirements for dormant licence discharge points 18 and 19.

Note, variations to EPL 3035 can occur without update to this Plan. The electronic version of EPL 3035 should be checked for validity.

7.2.2 Dust Deposition

The locations of dust depositional gauges are listed in **Table 9** and shown on **Figure 11**.

Table 9 – Location of Dust Depositional Gauges

Dust Depositional Gauge	Location Description	Locale
DDG 1	Borg Panels eastern boundary with Woodchem	On-Site
DDG 2	South West of Conti 2	On-Site
DDG 3	Water treatment plant (east of Spring dam)	On-Site
DDG 4	Water treatment plant (northern boundary)	On-Site
DDG 5	Highlands Motor Inn	Off-Site
DDG 6	Albion Street (south east of Borg Panels facility)	Off-Site

Figure 11 – Location of Depositional Dust Gauges and Meteorological Station

7.2.3 Meteorological Monitoring

The meteorological monitoring station is identified as *Weather Station* on **Figure 11**.

7.3 Monitoring Frequency

7.3.1 Emissions to Air

The frequency of monitoring of emissions to air is detailed in **Table 10**.

Table 10 – Frequency of Monitoring

EPA Identification	Pollutant	Units	Frequency
Point 4	Total Solid Particles	mg/m^3	Yearly
	Formaldehyde	mg/m^3	Yearly
Point 5	Total Solid Particles	mg/m^3	Yearly
	Formaldehyde	mg/m^3	Yearly
Point 7	Total Solid Particles	mg/m^3	Yearly
Point 8	Total Solid Particles	mg/m^3	Yearly
Point 9	Total Solid Particles	mg/m^3	Yearly
	Formaldehyde	mg/m^3	Yearly
	Nitrogen Oxides	mg/m^3	Yearly
	PM_{10}	mg/m^3	Yearly
	Smoke Emissions	percent Opacity	Every 6 months
Point 10	Total Solid Particles	mg/m^3	Yearly
	Formaldehyde	mg/m^3	Yearly
	Nitrogen Oxides	mg/m^3	Yearly

EPA Identification	Pollutant	Units	Frequency
	PM_{10}	mg/m^3	Yearly
	Smoke Emissions	percent Opacity	Every 6 months
Point 12	Total Solid Particles	mg/m^3	Every 3 years
	Formaldehyde	mg/m^3	Every 3 years
	Nitrogen Oxides	mg/m^3	Every 3 years
	PM_{10}	mg/m^3	Every 3 years
Point 27	Total Solid Particles	mg/m^3	Yearly
	Formaldehyde	mg/m^3	Yearly
	Nitrogen Oxides	mg/m^3	Yearly
	PM_{10}	mg/m^3	Yearly
Point 29	Formaldehyde	mg/m^3	Yearly
	Nitrogen Oxides	mg/m^3	Yearly
	PM10	mg/m^3	Yearly
	Smoke Emissions	mg/m^3	Yearly
	Total Solid Particles	mg/m^3	Yearly
Point 30	Formaldehyde	mg/m^3	Yearly
	Nitrogen Oxides	mg/m^3	Yearly
	PM10	mg/m^3	Yearly
	Smoke Emissions	mg/m^3	Yearly
	Total Solid Particles	mg/m^3	Yearly
Point 31	Formaldehyde	mg/m^3	Yearly
	Nitrogen Oxides	mg/m^3	Yearly
	PM10	mg/m^3	Yearly
	Smoke Emissions	mg/m^3	Yearly
	Total Solid Particles	mg/m^3	Yearly
Point 32	Formaldehyde	mg/m^3	Yearly
	Nitrogen Oxides	mg/m^3	Yearly
	PM10	mg/m^3	Yearly
	Smoke Emissions	mg/m^3	Yearly
	Total Solid Particles	mg/m^3	Yearly
Point 33	Formaldehyde	mg/m^3	Yearly
	Nitrogen Oxides	mg/m^3	Yearly
	PM10	mg/m^3	Yearly
	Smoke Emissions	mg/m^3	Yearly
	Total Solid Particles	mg/m^3	Yearly
Point 33	Nitrogen Oxides	mg/m^3	Yearly
	VOC's (as N-propane equivalents)	mg/m^3	Yearly
Point 34	Nitrogen Oxides	mg/m^3	Yearly
	VOC's (as N-propane equivalents)	mg/m^3	Yearly

7.3.2 Dust Deposition

Depositional dust gauge samples are collected every 30 +/- 2 days.

7.3.3 Meteorological Monitoring

The meteorological monitoring station is a continuous weather recording station with data available in real time.

8 Contingency Plan for Unpredicted Impacts

In the event of previously unpredicted air quality impacts, resulting from either an exceedance of criteria, a valid complaint, or site staff observations, the following process will be implemented:

- The Environment Coordinator is to be notified;
- Environment Coordinator to determine if the unpredicted impact constitutes an environmental incident that requires external reporting (**Section 9**);
- Investigate to evaluate the contributing factors to the event. The investigation may include (where applicable):
    - Assessment of weather conditions for the period of monitoring, including wind speed and direction;
    - Visual assessment of the area surrounding the monitoring location to identify any potential sources of dust generation (on-site and off-site);
    - Review of operational activities during the period of monitoring;
- Implement remedial response and/or adaptive management measures, dependant on the outcomes of the above investigation; and
- Implement the Review component (**Section 10**) of this Plan as required.

9 Reporting

Borg Panels will manage all internal and external reporting requirements in accordance with the Operational Environmental Management Plan (OEMP). Specific reporting functions relevant to this Plan are detailed below.

9.1 Internal Review

The Environment Coordinator/Manager will review dust deposition monitoring results monthly and emissions to air monitoring results annually. Results of investigations of any complaints and any exceedances of the air quality impact assessment criteria will be reported to senior management promptly.

9.2 Scheduled Reporting

Air quality emissions performance is reported externally as follows:

- Annual emissions to air compliance monitoring reports, which include a comparison of measured air emissions with operational air quality criteria conditioned in EPL 3035;
- Annual updates of monitoring results on the Borg website;
- Annual Review. A copy of the Annual Review is sent to relevant stakeholders, including DP&E, EPA and Oberon Council and is available on the Borg website; and
- EPA Annual Return, statement of compliance and a monitoring and complaints summary annually as required by EPL 3035.

9.3 Exceedance of Criteria / Environmental Incident Management

Notification procedures and actions upon identification of an exceedance of any impact assessment criteria or management levels will be as per the Operational Environmental Management Plan (OEMP), and any specific requirements of the relevant management plan or monitoring program.

In the event that a pollution incident causes or threatens material harm to the environment, the Borg Panels Pollution Incident Response Management Plan (PIRMP) is to be immediately implemented, including immediate notification of authorities as outlined in the OEMP and PIRMP

Where an exceedance of the impact assessment criteria and/or performance criteria outlined in the *Air Quality Impact Assessment* (Todoroski Air Sciences, February 2017) continually occurs:

- A detailed examination of the existing processes to identify the potential for emissions reduction will be undertaken; and
- Where practicable and economically feasible to do so measures may be put in place to further reduce emissions.

9.4 Complaints

Community complaints will be managed in accordance with the procedures in the Operational Environmental Management Plan (OEMP). The 24-hour free call community liaison line contact number is included in the OEMP.

10 Review

In accordance with Development Consent SSD 7016 Condition C10, this Plan will be reviewed and if necessary revised within 3 months of an:

- Approval of a modification;
- Submission of an incident report under Condition C13;
- Approval of an Annual Review under Condition C11; or
- Completion of an audit under Condition C15.

This is a dynamic Plan which will also be reviewed, and if necessary revised, where any modification to site procedures that have the potential to impact air emissions are needed, or for example to be current following any updates or amendments to legislation.

Revisions to the Operational Air Quality Management Plan will be submitted to the Secretary DP&E for approval.

11 References

National Environment Protection Council (NEPC) Act 1994

National Environment Protection (Ambient Air Quality) Measure 2016. National Environment Protection Council, Canberra, February 2016.

NSW DEC (2005) *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*. Department of Environment and Conservation, August 2005.

Protection of the Environment Operations (Clean Air) Regulation 2010

Todoroski Air Sciences (16 February 2017) *Air Quality Impact Assessment Revised Borg Manufacturing Timber Panels Processing Facility Expansion*. Prepared by Todoroski Air Sciences Pty Ltd for Borg Manufacturing.

United States Environment Protection Agency: https://www.epa.gov/environmental-topics/air-topics

WHO (2010) *WHO guidelines for indoor air quality: selected pollutants*, World Health Organisation, 2010.

Appendices

Appendix A – Emissions Monitoring Data

EPA Identification Point 4 - DC1 Baghouse												
Pollutant	**Units**	**Frequency**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
Particulate Matter	mg/m3	Yearly	3.8	8.4	3	2.4	3.9	4.6		0.15	4.3	2.3
Formaldehyde	mg/m3	Yearly	2.2	1.4	0.47	1.5	1.4	0.82		5.99	0.09	3.7

EPA Identification Point 5 - DC2 Baghouse												
Pollutant	**Units**	**Frequency**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
Particulate Matter	mg/m3	Yearly	3.8	4.3	2	2	0.93	1.6		0.1	2.4	2
Formaldehyde	mg/m3	Yearly	2.6	3.6	0.099	0.26	1.3	0.83		1.96	0.19	3.5

EPA Identification Point 7 - Conti 2 Stage 1 Dryer Cyclone #1 (west)												
Pollutant	**Units**	**Frequency**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
Particulate Matter	mg/m3	Yearly		17	23	14	21	5.9		18.93	19	40

EPA Identification Point 8 - Conti 2 Stage 1 Dryer Cyclone #2 (east)												
Pollutant	**Units**	**Frequency**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
Particulate Matter	mg/m3	Yearly		11	18	14	18	7.7		11.98	21	33

EPA Identification Point 9 - Conti 1 Dryer Cyclone #1 (south)												
Pollutant	**Units**	**Frequency**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
Particulate Matter	mg/m3	Yearly	16	12	20		6.6	7.6		6.7	29	9.8
Formaldehyde	mg/m3	Yearly	1.2	1.7	2.1		2.2	1.1		6.94	3	1.1
Nitrogen Oxides	mg/m3	Yearly	99	86	100		5.2	8.6		49	250	150
PM10	mg/m3	Yearly	13	8	15		3.9	5.3		7.6	25	5.9
Volatile Organic Compounds	mg/m3	Yearly	1.4	4.9	4.1		0.67	0.46		2.25	1.3	2.9

EPA Identification Point 10 - Conti 1 Dryer Cyclone #2 (north)												
Pollutant	**Units**	**Frequency**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
Particulate Matter	mg/m3	Yearly		11	13	23	6.4	7.3		10.8	31	21
Formaldehyde	mg/m3	Yearly		6.9	0.77	3.4	2.7	0.9		11.59	3.1	2.4
Nitrogen Oxides	mg/m3	Yearly		69	88	110	6.7	7.8		44	250	170
PM10	mg/m3	Yearly		3.9	11	19	4.6	5.1		5.46	28	8
Volatile Organic Compounds	mg/m3	Yearly		5.6	4.5	4.2	0.43	0.72		1.94	1.5	5.3

EPA Identification Point 11 - Conti 2 Heat Plant													
Pollutant	**Units**	**Frequency**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**Concentration Limit**
Particulate Matter	mg/m3	Yearly		72	66	140	100	76		81.7	75	130	200
Formaldehyde	mg/m3	Yearly		0.02	0.02	0.017	7.4	0.34		0.005	0.01	0.01	5
Nitrogen Oxides	mg/m3	Yearly		640	660	410	440	630		663	530	530	No Limit
PM10	mg/m3	Yearly		42	53	67	96	69		73.97	37	80	No Limit
Volatile Organic Compounds	mg/m3	Yearly		0.3	0.25	0.16	0.32	0.095		3.82	0.99	0.12	10
Smoke Emissions	percent Opacity	Every 6 months		0	0	0	0	0		0	0	0	No Limit
Notes:	* Particulate Matter and PM10 corrected to 6.5% CO2 mg/m3												

EPA Identification Point 12 - Press Vents Conti 1												
Pollutant	**Units**	**Frequency**	**2007-08**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**	**2016-17**
Particulate Matter	mg/m3	Every 3 years	-	2.84	-	-	-	9.47	-	2.35	-	-
Formaldehyde	mg/m3	Every 3 years	-	0.38	-	-	-	9.1	-	1.59	-	-
Nitrogen Oxides	mg/m3	Every 3 years	-	4.1	-	-	-	4.1	-	3.2	-	-
PM10	mg/m3	Every 3 years	-	2.68	-	-	-	5.83	-	2.2	-	-
Volatile Organic Compounds	mg/m3	Every 3 years	-	0.95	-	-	-	0.26	-	0.85	-	-
Notes:	Mean of results for 5 press vents reported											

EPA Identification Point 13 - Press Vents Conti 2

Pollutant	Units	Frequency	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Particulate Matter	mg/m3	Every 3 years	-	4.88	-	-	8.18	-	-	1.896	-	-
Formaldehyde	mg/m3	Every 3 years	-	3	-	-	3.72	-	-	4.092	-	-
Nitrogen Oxides	mg/m3	Every 3 years	-	4.1	-	-	4.1	-	-	2.2	-	-
PM10	mg/m3	Every 3 years	-	2.86	-	-	8.68	-	-	1.094	-	-
Volatile Organic Compounds	mg/m3	Every 3 years	-	0.28	-	-	0.61	-	-	2.636	-	-
Carbon Dioxide	mg/m3	Every 3 years	-		-	-		-	-		-	-
Carbon Monoxide	mg/m3	Every 3 years	-		-	-	2.5	-	-	2.5	-	-

Notes: EPA Point 13 due for sampling in 2018

EPA Identification Point 17 - Conti 1 Heat Plant

Pollutant	Units	Frequency	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17~	Concentration Limit
Particulate Matter	mg/m3	Yearly		140	77	77	-	1200	-	994	190	0	200
Formaldehyde	mg/m3	Yearly		0.02	0.02	0.02	-	1.2	-	0.017	0.017	0	5
Nitrogen Oxides	mg/m3	Yearly		890	550	270	-	500	-	868	1000	0	No Limit
PM10	mg/m3	Yearly		100	49	56	-		-	167	140	0	No Limit
Volatile Organic Compounds	mg/m3	Yearly		0.18	0.2	0.16	-	0.36	-	0.85	1	0	10
Smoke Emissions	percent Opacity	Every 6 months		0	0	0	-	0	-	0	0	0	No Limit

Notes: ~ No flow. Exhaust from Conti 1 Heat Plant now ducted back into the Conti 1 production system

* Particulate Matter and PM10 corrected to 6.5% CO2 mg/m3

EPA Identification Point 18 - Press Exhaust Vents Discharge

Pollutant	Units	Frequency	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Particulate Matter	mg/m3	Every 3 years						Dormant	Dormant	Dormant	Dormant	Dormant
Formaldehyde	mg/m3	Every 3 years						Dormant	Dormant	Dormant	Dormant	Dormant
Volatile Organic Compounds	mg/m3	Every 3 years						Dormant	Dormant	Dormant	Dormant	Dormant
Velocity	mg/sec	Every 3 years						Dormant	Dormant	Dormant	Dormant	Dormant

EPA Identification Point 19 - Dryer Stack

Pollutant	Units	Frequency	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Particulate Matter	mg/m3	Yearly						Dormant	Dormant	Dormant	Dormant	Dormant
Nitrogen Oxides	mg/m3	Yearly						Dormant	Dormant	Dormant	Dormant	Dormant
Volatile Organic Compounds	mg/m3	Yearly						Dormant	Dormant	Dormant	Dormant	Dormant
Velocity	mg/sec	Yearly						Dormant	Dormant	Dormant	Dormant	Dormant

EPA Identification Point 23 - Paper Oven Vent Discharge

Pollutant	Units	Frequency	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Particulate Matter	mg/m3	Yearly								4.5	3.1	8.5
Formaldehyde	mg/m3	Yearly								13.31	4	0.46
Volatile Organic Compounds	mg/m3	Yearly								4.26	0.57	0.53