



GrainCorp

Environmental Monitoring Data

Monthly Monitoring Results – May 2017

Newcastle Grain Terminal



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Table of Contents

1.0 Introduction and Background..... 3

2.0 Newcastle Grain Terminal Site Information 3

 2.1 Environment Protection License..... 3

 2.2 Relevant Reporting Dates..... 3

3.0 Monitoring Frequency and Location 4

 3.1 Dust Monitoring..... 4

 3.2 Dust Monitoring Location Points 5

 3.3 Unit of Measure Abbreviations..... 6

4.0 Certificate of Analysis Monthly Dust Analytical Results 7

5.0 Monthly Exceedances Table 8

6.0 Correction Log 9

1.0 Introduction and Background:



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This monthly monitoring report has been produced to satisfy obligations under the *Protection of the Environment Operations Act 1997* (POEO Act) and associated *Protection of the Environment Legislation Amendment Act 2011* (POELA Act) for licensed facilities to publish or make pollution monitoring data available to members of the public. This report provides a summary of monthly environmental monitoring results for GrainCorp's Newcastle (Carrington) Grain Terminal. Analytical results are included under Sections 4 and 5, as part of this report.

2.0 Newcastle Grain Terminal Site Information:

| 2.1 Environment Protection License (EPL) | |
|--|---|
| EPL Number | 1296 |
| Licensee's Name | GrainCorp Operations Ltd |
| Licensee's Address | PO Box A268 Sydney South NSW 1235 |
| Premises Name | Newcastle Grain Terminal |
| Premises Location | Denison Street Carrington NSW 2294 |
| EPL Link | http://www.environment.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=28906&SYSUID=1&LICID=1296 |

| 2.2 Relevant Reporting Dates | |
|---|----------------------------|
| Monthly Summary Monitoring Period | May 2017 |
| Monthly Summary Date Published | 23 rd June 2017 |
| Date Results Received by GrainCorp from Monitoring Consultant | 20 th May 2017 |
| Date Data Obtained by Monitoring Consultant | 30 th May 2017 |
| | |



3.0 Monitoring Frequency and Location:

Under Section 5 (M2) of EPL No. 1296, GrainCorp monitors the concentrations of the required pollutants, with the associated monitoring frequency and sampling method provided below.

| 3.1 Dust Monitoring | | | | | | | |
|-----------------------|-----------------------|--|---------------------------------|------------------------------------|-----------------------------------|-----------------------------|-----------------|
| Monitoring Point | EPA Identification no | Specific Location | Pollutant | Units of Measure | EPA Required Monitoring Frequency | Actual Monitoring Frequency | Sampling Method |
| DG 4 & Rail Yard HVAS | Point 4 | Western boundary of premises, behind northern storage silos, adjacent to Young St Carrington | Particulate Matter | $\mu\text{g}/\text{m}^3$ | Every 6 days | 62.2 | AM-15 |
| | | | Particulates – Deposited Matter | $\text{g}/\text{m}^2.\text{month}$ | Monthly | 1.4 | AM-19 |
| DG 6 & Smart St HVAS | Point 5 | Adjacent to 148 Denison St and Smart St Carrington | Particulate Matter | $\mu\text{g}/\text{m}^3$ | Every 6 days | 54.4 | AM-15 |
| | | | Particulates – Deposited Matter | $\text{g}/\text{m}^2.\text{month}$ | Monthly | 1.8 | AM-19 |
| DG 5 & R&D HVAS | Point 6 | 10 Darval St Carrington | Particulate Matter | $\mu\text{g}/\text{m}^3$ | Every 6 days | 45.7 | AM-15 |
| | | | Particulates – Deposited Matter | $\text{g}/\text{m}^2.\text{month}$ | Monthly | 1.3 | AM-19 |
| DG 3 | Point 7 | Western Corner on boundary of premises near Darval St | Particulates – Deposited Matter | $\text{g}/\text{m}^2.\text{month}$ | Monthly | 1.0 | AM-19 |
| DG 2 | Point 8 | Southern Corner of premises behind road receival area | Particulates – Deposited Matter | $\text{g}/\text{m}^2.\text{month}$ | Monthly | 0.9 | AM-19 |

* DG: Fixed Dust Gauge

* HVAS: High Volume Air Sampler

* AM: Approved Method



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3.2 Dust Monitoring Location Points



AECOM



- Dust Gauge Location
- HVAS Location

Image Source: Google Earth Pro, Accessed 29/9/10

Figure 1 GrainCorp Carrington HVAS and Dust Gauge Locations
GrainCorp Operations Limited
Ambient Air Quality Monitoring
Carrington, NSW



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3.3 Unit of Measure Abbreviations

| Unit of Measure Abbreviation | Unit of Measure |
|--|----------------------------------|
| $\mu\text{g}/\text{m}^3$ | micrograms per cubic metre |
| $\text{g}/\text{m}^2 \cdot \text{month}$ | grams per square metre per month |
| m^3/s | cubic metres per second |
| mg/m^3 | milligrams per cubic metre |



4.0 Certificate of Analysis Monthly Dust Analytical Results

Table 2 Dust Deposition Results – May 2017

| Dust Gauge | Insoluble Solids (g/m ² .month) | Annual Average Insoluble Solids (g/m ² .month) | Annual Average Insoluble Solids Criteria (g/m ² .month) | Ash Residue (g/m ² .month) | Ash Residue (% Insoluble Solids) |
|------------|--|---|--|---------------------------------------|----------------------------------|
| DG2 | 1.0 | 0.9 | 4.0 | 0.3 | 30 |
| DG3 | 0.7 | 1.0 | | 0.4 | 57 |
| DG4 | 2.4 | 1.4 | | 1.1 | 46 |
| DG5 | 1.2 | 1.3 | | 0.6 | 50 |
| DG6 | 1.7 | 1.8 | | 0.6 | 35 |

Table 3 Total Suspended Particulate Monitoring Results – May 2017

| Date of Operation | Smart St (µg/m ³) | R & D (µg/m ³) | Rail Yard (µg/m ³) |
|--|-------------------------------|----------------------------|--------------------------------|
| 2 May 2017 * Catch up sample from 31 March 2017 | 39.4 | | |
| 6 May 2017 | 40.5 | 37.3 | 58.1 |
| 12 May 2017 | 27.9 | 24.8 | 62.8 |
| 18 May 2017 | 124 | 71.6 | 111 |
| 24 May 2017 | 30.2 | 27.8 | 43.0 |
| 30 May 2017 | 33.0 | 25.6 | 42.3 |
| Average Monthly TSP | 49.2 | 37.4 | 63.4 |
| 12-month Average | 54.4 | 45.7 | 62.2 |
| 12-month Average TSP Criteria | 90 | | |

Results in bold denotes exceedences.



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Table 4 Microscopic Examination Results – May 2017

| Date of Operation | Sample (paper no.) | TSP ($\mu\text{g}/\text{m}^3$) | Coal (%) | Insects (%) | Dirt (%) | Vegetation (%) | Grain (%) | Other (%) |
|-------------------|---------------------|----------------------------------|----------|-------------|----------|----------------|-----------|-----------|
| 12 May 2017 | Rail Yard (9169633) | 62.8 | <5 | <5 | 85 | 5 | 10 | 0 |
| 24 May 2017 | Rail Yard (9423182) | 43.0 | <5 | <5 | 85 | 10 | 5 | 0 |



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5.0 Monthly Exceedance Table

| | |
|--------------------|---|
| EPL Number | 1296 |
| Licensee's Name | GrainCorp Operations Ltd |
| Licensee's Address | PO Box A268 Sydney South NSW 1235 |
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May 2017

| Date Sampled | EPA Identification no | Pollutant | Units of Measure | Sample Value | 100 Percentile Limit | Exceedance | Date/Time of Exceedance | Comment |
|--------------|-----------------------|-----------|------------------|--------------|----------------------|------------|-------------------------|---------|
| NIL | | | | | | | | |



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7.0 Correction Log

| | |
|--------------------|---|
| EPL Number | 1296 |
| Licensee's Name | GrainCorp Operations Ltd |
| Licensee's Address | PO Box A268 Sydney South NSW 1235 |
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May 2017

| Monitoring Location | EPA Identification no | Pollutant | Units of Measure | Original Sample Date | New Sample Date | Original Data | Corrected Data | Reason |
|---------------------|-----------------------|-----------|------------------|----------------------|-----------------|---------------|----------------|--------|
| NIL | | | | | | | | |