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## Sterling Chemical Malta Ltd.

Noise Monitoring

**Report Date: Friday, 28 November 2014**

### Introduction

A monitoring exercise for workplace noise was performed at Sterling Chemical Malta Ltd of HF51, Hal Far Industrial Estate, Birzebbugia, BBG 3000, Malta. Noise monitoring was carried out following standard methodology BS 4142:1997.

The protection of workers from risks to their health and safety arising or likely to arise from exposure to noise, and in particular the risk to hearing, is covered by Directive 2003/10/EC, which has been transposed into local legislation as L.N. 158 of 2006. The exposure limit value is set at 87 dB(A).

The sound level meter used in this exercise was duly calibrated. The calibration certificate is attached at the end of this covering report. The sampling details are listed in Table 1 below. Maps of the plant denoting the respective sampling locations are also attached with this report.

**Table 1:** Sampling Details

Sample N°	Location	Remarks	Sampling Date	Time ON	Time OFF
1	Inside Fire Pump Room	Background	27/11/2014	11.24	11.34
2	Outside Fire Pump Room	Background	27/11/2014	11.40	11.50

### Results

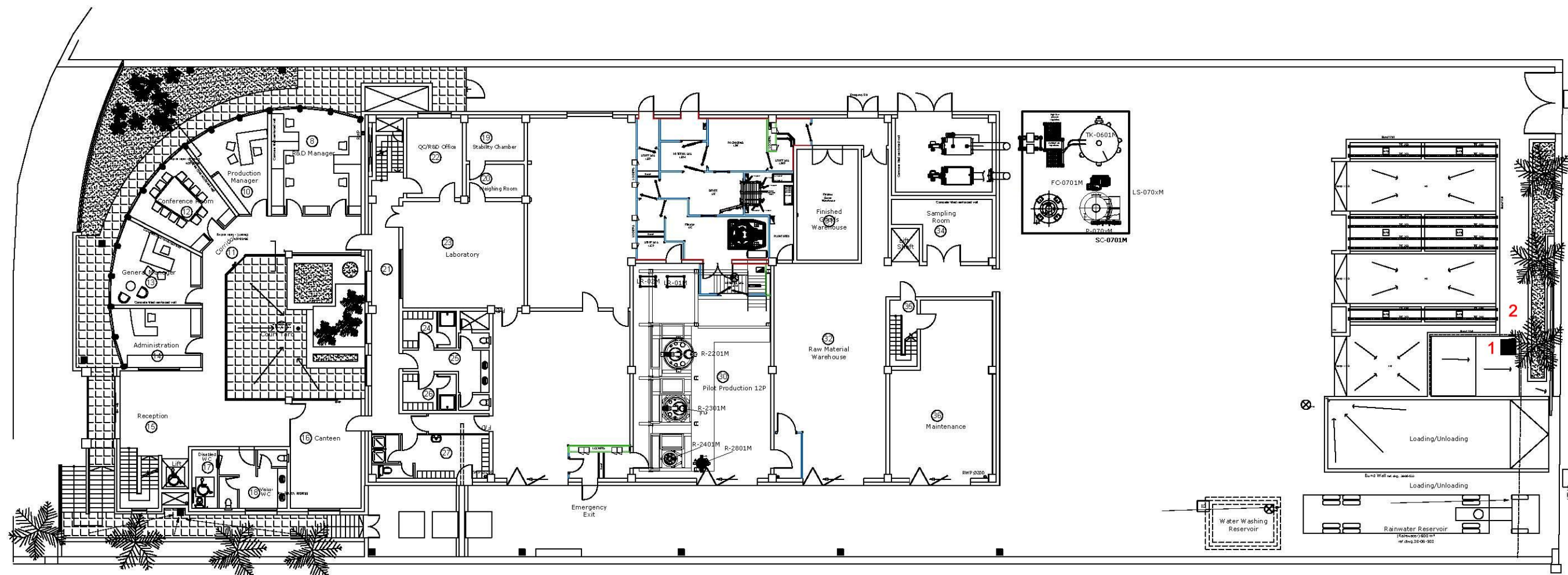
The noise plots downloaded from instrument are attached with this covering report. The 10-minute averaged-out results obtained are outlined in Table 2 below.

**Table 2:** Results

Sample N°	Result	Units
1	51.7	dB(A)
2	59.9	dB(A)

### Conclusion

Neither test exceeded the 87 dB(A) noise level threshold. This was expected since both tests were carried out to measure the background noise levels while the diesel and electric motors situated inside the Fire Pump Room were not operational. The noise levels inside were lower than those outside. The noise created by the normal plant operations being carried out in the yard area contributed to the higher result obtained in the outside test.



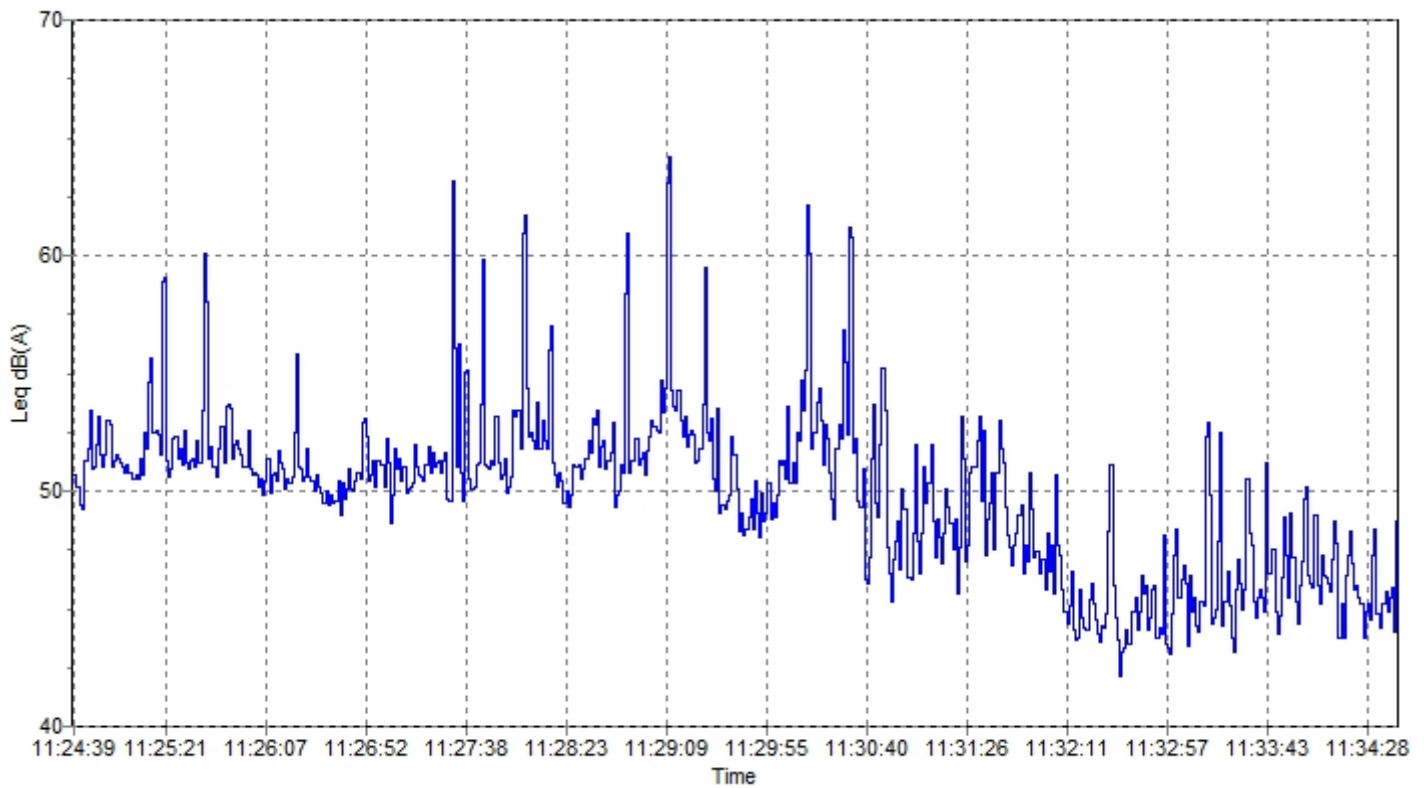
# Measurement Report

## Measurement Details

Date and Time: 27/11/2014 11:24  
Sound Level Meter: Cirrus Research plc  
Recalibration Due: 30/09/2015  
Run Duration: 00:10:00 hh:mm:ss  
Range: 40-110 dB  
Overload: no

## Data

Leq	51.7 dBA	L1.0	61.6 dBA
Lepd	34.9 dBA	L10.0	53.2 dBA
LAE	79.3 dBA	L50.0	50.3 dBA
LAFmax	66.0 dBA	L90.0	44.5 dBA
Peak	94.5 dBC	L95.0	43.8 dBA
		L168.0	0.0 dBA



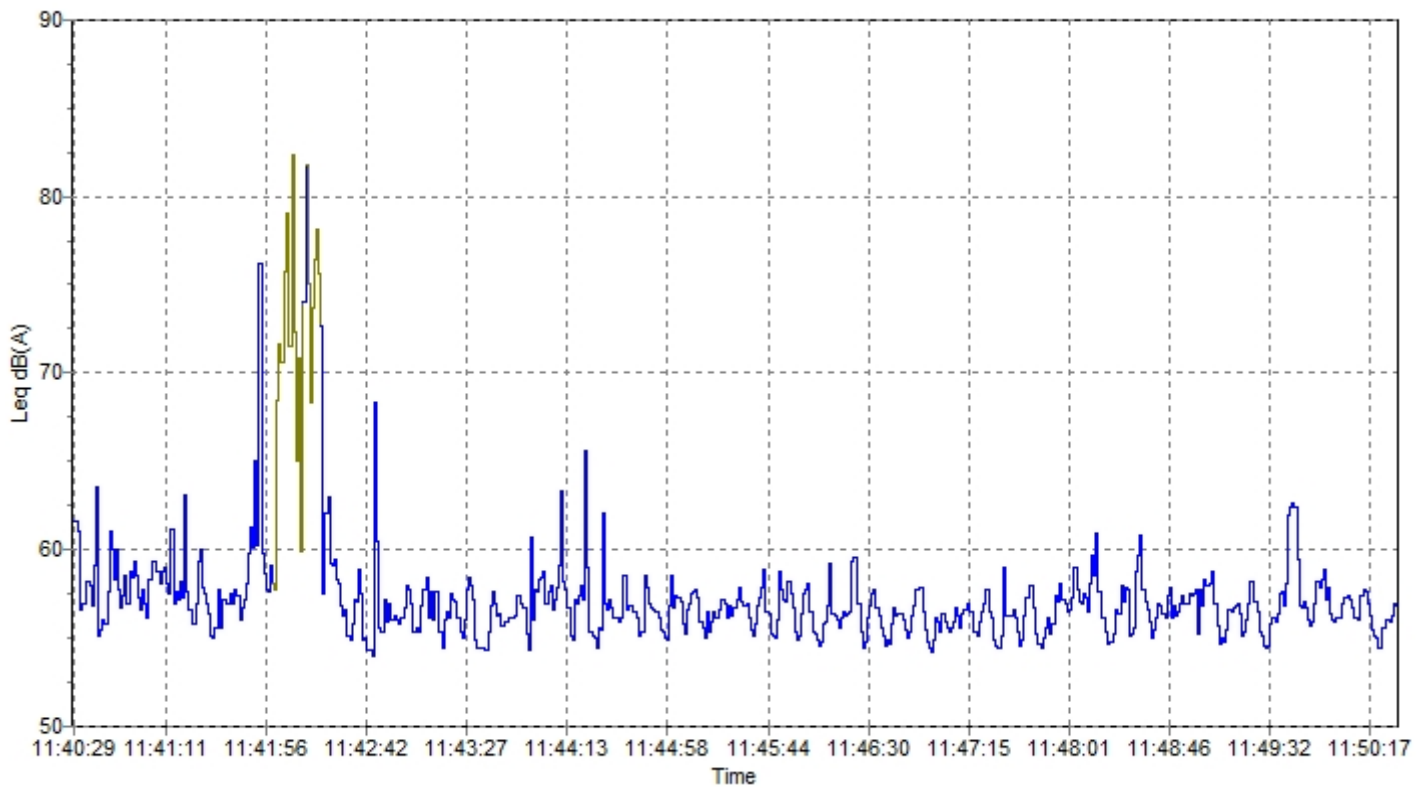
# Measurement Report

## Measurement Details

Date and Time: 27/11/2014 11:40  
Sound Level Meter: Cirrus Research plc  
Recalibration Due: 30/09/2015  
Run Duration: 00:09:40 hh:mm:ss  
Range: 40-110 dB  
Overload: no

## Data

Leq	59.9 dBA	L1.0	63.8 dBA
Lepd	42.9 dBA	L10.0	58.8 dBA
LAE	87.3 dBA	L50.0	56.7 dBA
LAFmax	86.3 dBA	L90.0	55.0 dBA
Peak	99.7 dBC	L95.0	54.7 dBA
		L14.4	0.0 dBA





# Certificate of Calibration



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## Equipment Details

Instrument Manufacturer Cirrus Research plc  
Instrument Type CR:811C  
Description Sound Level Meter  
Serial Number D20097FD

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## Calibration Procedure

The instrument detailed above has been calibrated to the publish test and calibration data as detailed in the instrument hand book, using the techniques recommended in the latest revisions of the International Standards IEC 61672-1:2002, IEC 60651:1979, IEC 60804:2001, IEC 61260:1995, IEC 60942:1997, IEC 61252:1993, ANSI S1.4-1983, ANSI S1.11-1986 and ANSI S1.43-1997 where applicable.

Sound Level Meters: All Calibration procedures were carried out by substituting the microphone capsule with a suitable electrical signal, apart from the final acoustic calibration.

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## Calibration Traceability

The equipment detailed above was calibrated against the calibration laboratory standards held by Cirrus Research plc. These are traceable to International Standards {A.0.6}. The standards are:

Microphone Type	B&K4180	Serial Number	1893453	Calibration Ref.	S 6009
Pistonphone Type	B&K4220	Serial Number	613843	Calibration Ref.	S 5964

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Calibrated by

Calibration Date

19 September 2014

Calibration Certificate Number

221914

This Calibration Certificate is valid for 12 months from the date above.

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