

Tabbin Institute for Metallurgical Studies

Energy and Environment Research Center

ISO 9001 -2008

E2RC

Report on
Exhaust Stack Emissions Measurement from
Tourah Cement Company
Aqua Misr Company

February 2015

Team Work

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Introduction

According to the contract between *Aqua Misr Co. and Energy and Environment Research Center / Tabbin Institute for Metallurgical Studies (TIMS)* to execute Exhaust Stack emissions Measurement from the bag filter of Cement Mill No.(11)& clinker tunnels (2&4) factory (2) at *Tourah Cement Company*, TIMS team work had conducted these measurement in February 2015.

⇒ *Measurements*

⇒ The following parameters were measured from stacks of Raw Mill

1. Concentration of dust emissions form stacks .
2. Concentration of combustion gases (Temp. O₂) from stacks.

⇒ *The Use Equipment*

1. Exhaust stacks emissions for bag filter of Cement Mill No. 10
Universal Stack sampler. USA

Sampling method : Isokinetic measurement

EPA method No. 1,2 velocity & flow rate

EPA method No. 5 dust emission

- 2 .Combustion gas analyzer Lancom- III U.S.A



Table (1)
 Exhaust Stack Emission

Company Name : Tourah Cement Company
 Measurements date : 23/2 /2015
 Site Name : Stack of Cement Mill No. (11) – Factory 2

Parameter	Unit	Out let	Maximum permissible limits according to law 4/1994 for Environment protection and its amendments by law No.9/2009 and its executive regulation issued in 1995 and its amendments issued no. 1095/ 2011 & 710/2012
Stack Temperature	°C	40	---
Stack Dimensions	Cm	35 x 85	
Cross section area	m ²	0.3	
Barometer P	mbar	1011	---
Static Pressure	mmH ₂ O	-10	---
Dynamic P. (Avg.)	mmH ₂ O	12.5	---
Velocity	m/s	14.8	---
H ₂ O	%	1	---
O ₂	%	20.3	---
Stack Flow Rate	m ³ /h	15850	---
Dust concentration	mg/m ³	8	50



Table (2)
Exhaust Stack Emission

Company Name : Tourah Cement Company
Measurements date : 23/2 /2015
Site Name : Stack of clinker tunnel (2)

<i>Parameter</i>	<i>Unit</i>	<i>Out let</i>	Maximum permissible limits according to law 4/1994 for Environment protection and its amendments by law No.9/2009 and its executive regulation issued in 1995 and its amendments issued no. 1095/ 2011 & 710/2012
Stack Temperature	°C	45	---
Stack Dimensions	Cm	35 x 85	
Cross section area	m ²	0.3	
Barometer P	mbar	1011	---
Static Pressure	mmH ₂ O	-11	---
Dynamic P. (Avg.)	mmH ₂ O	12.4	---
Velocity	m/s	14.6	---
H ₂ O	%	1	---
O ₂	%	20.4	---
Stack Flow Rate	m ³ /h	15770	---
Dust concentration	mg/m ³	6	50



Handwritten signatures and initials in blue ink, including 'c. 16' and 'Bahia'.

Table (3)
Exhaust Stack Emission

Company Name : Tourah Cement Company
Measurements date : 23/2 /2015
Site Name : Stack of clinker tunnel (4)

<i>Parameter</i>	<i>Unit</i>	<i>Out let</i>	Maximum permissible limits according to law 4/1994 for Environment protection and its amendments by law No.9/2009 and its executive regulation issued in 1995 and its amendments issued no. 1095/ 2011 & 710/2012
Stack Temperature	°C	44	---
Stack Dimensions	Cm	35 x 85	
Cross section area	m ²	0.3	
Barometer P	mbar	1011	---
Static Pressure	mmH ₂ O	-11	---
Dynamic P. (Avg.)	mmH ₂ O	12.2	---
Velocity	m/s	14.4	---
H ₂ O	%	1	---
O ₂	%	20.3	---
Stack Flow Rate	m ³ /h	15550	---
Dust concentration	mg/m ³		50

