

Tabbin Institute for Metallurgical Studies

Energy and Environment Research Center

ISO 9001 -2008

E2RC

Report on

**Exhaust Stack Emissions Measuremetn from
The Bag Filter of Cement Mills No. 10 B at
Tourah Cement Company**

Aqua Misr Company

October, 2012

Team Work

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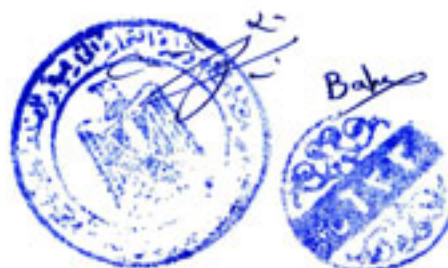
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Introduction

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 form the bag filter of Cement Mills No.10 B at *Tourah Cement Company*, TIMS team work had conducted these measurement in October, 2012.

⇒ *Measurements*

⇒ The following parameters were measured form stacks of Cement Mills

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. 10B
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 Lancôm- III U.S.A



Bah

Table (1)
Exhaust Stack Emission

Company Name : Tourah Cement Company
Measurements date : 23/ 10 /2012
Site Name : Stack of Cement Mill No. (10 B)

| <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 | 84 | --- |
| Barometer P | mbar | 1009 | --- |
| Static Pressure | mmH ₂ O | -10 | --- |
| Dynamic P. (Avg.) | mmH ₂ O | 13 | --- |
| Velocity | m/s | 19.8 | --- |
| H ₂ O | % | 0.4 | --- |
| O ₂ | % | 20.5 | --- |
| Stack Flow Rate | m ³ /h | 51317 | --- |
| Dust concentration | mg/m ³ | 8 | 50 |

