

NESTLE INDUSTRIAL
AND COMMERCIAL
LTDA

Araraquara – SP.
Brasil

Nestlé

Fuel: Bunker

Machine/Type: Boiler

Test: Emissions Control

Xp Lab, Inc.

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CASE STUDY



Relatoria NT. AM 0353/22

Company: Nestlé Industrial y Comercial LTDA
Location: Rua Bahia, 100
Araraquara – SP. Brasil
Objective: To show the emission's particle size concentration and the distribution of particulate matter in flue gases of a boiler.
To determine if the use of Xp³, in the fuel used in the boilers, would reduce particulate emissions.

Services

Sample Material: Particle Material
No. of Samples: 03 (three)
Sample Location: Exhaust

E.C.P / Process

E.C.P: Ciclón
Process: Caldera – Ciclón Desligado

The samples collected and treated based on the E.P.A's (Environmental Protection Agency) requirements, using the following method:

Methodology:

An independent third party was contracted to measure the reduction in particle size material emissions, from two boilers, before and after using Xp³.

Treatment:

The treatment was conducted in three stages:

- a) During the first week, the fuel additive was added to the tank daily and during each refueling, in the following proportions: 1 part Xp³ for each 8,000 parts of fuel.
- b) During the second week, the fuel additive was added to the tank daily and during each refueling, in the following proportions: 1 part Xp³ for each 6,000 parts of fuel.
- c) Finally during the third and last week, the fuel additive was added to the tank daily and during each refueling, in the following proportions: 1 part Xp³ for each 4,000 parts of fuel.

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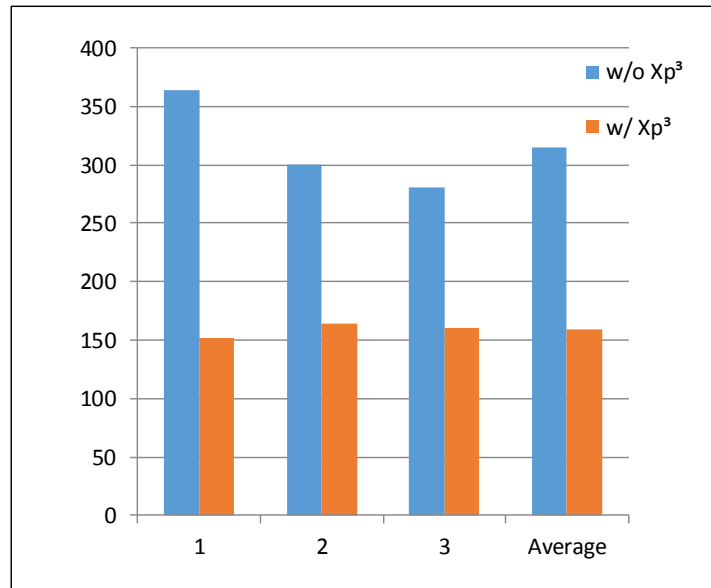
CASE STUDY



Results Summary: Emissions Test

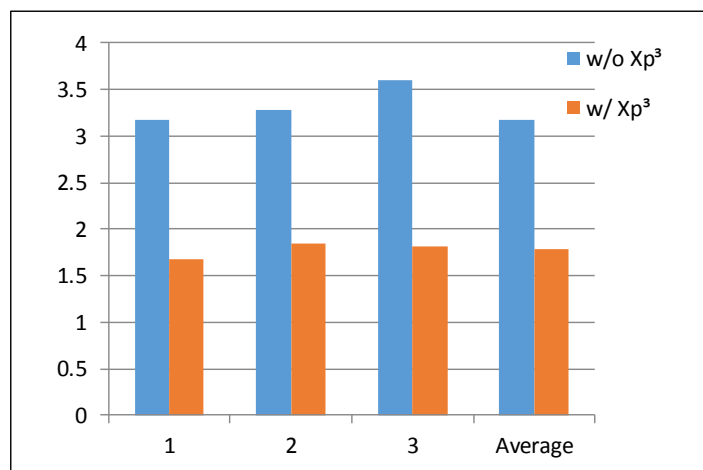
Concentration of Particles (mg/Nm³)

Sample	w/o Xp ³	w/ Xp ³
1	364.5	152
2	300.4	164.5
3	281.1	160.2
Average	315.3	158.9



Particle Material Emissions (kg/h)

Sample	w/o Xp ³	w/ Xp ³
1	3.17	1.68
2	3.28	1.85
3	3.6	1.81
Average	3.17	1.78



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