



QUESTIONNAIRE FOR ESP DESIGN

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CUSTOMER

Contractor: Phone:
E-mail:
End user: Phone:
E-mail:

SOURCE OF GAS POLLUTION – BASIC DATA

Source description
(technology):

Power of source:

Operating mode
(time utilization):

Source of pollution: new equipment reconstruction general overhaul common repair
other - specify:

Number of considered source outlets: 1 2 another number:

FUEL – ONLY FOR TECHNOLOGIES WITH COMBUSTION PROCESS

Quality sort and place of origin:

Fuel in raw conditions:	Basic - for Guarantee	Fuel No. 2	Fuel No. 3	
- calorific value:				MJ/kg
- water content:				% mass
- ash content:				% mass
- sulphur content:				% mass

Stabilizing fuel (if any):

CLIMATIC DATA ON SITE

Site location:

Altitude a.s.l.:	m	Bar. pressure:	Pa	Seismic activity:	MCS	
Ambient temperature:	min.: °C	max.:	°C	average:	°C	
Relative air humidity:	min.:	%	max.:	%	average:	%

Another specific climate (tropics, etc.) - specify:

CONDITIONS FOR ELECTRIC PART AND INSTRUMENTATION

Voltage 1: V Frequency 1: Hz Class of protection 1: IP
Voltage 2: V Frequency 2: Hz Class of protection 2: IP
another - specify:
Existing master control system: none yes - specify:

EXHAUST GAS CHARACTERISTICS AND PARAMETERS

Parameters related to: outlet flange of source of pollution
inlet flange of new (reconstructed) ESP
outlet flange of existing ESP
another - specify:

Parameters valid for: nominal power of source of pollution
another power - specify:

Gas temperature: max: °C min: °C operating: °C

Gas operating pressure: Pa

Gas flow volume: max: m³_A/s min: m³_A/s operating: m³_A/s
by gas temperature: °C and gas pressure: Pa
or recalculated to normal conditions (0°C, 101 325 Pa, wet gas)

max: m³_N/s min: m³_N/s operating: m³_N/s

Chemical analysis (% vol.): CO₂ SO₂+SO₃ H₂O O₂ CO
N₂ NO_x HF HCl

another - specify:

Gas property: inert corrosive explosive toxic

another - specify:

DUST CHARACTERISTICS AND PARAMETERS

Parameters related to: same place and power of source as in previous chapter

another place and power - specify:

Dust loading: g/m³_A, by gas temperature °C and gas pressure Pa

or: g/m³_N - recalculated to normal condition (0°C, 101 325 Pa, wet gas)

DUST CHARACTERISTICS AND PARAMETERS

Density: specific: kg/m³ bulk: kg/m³ shaken: kg/m³

Unburnt material proportion: % mass

Specific electric resistivity: Ω . m

Dust property: inert corrosive sticky abrasive

 toxic hygroscopic dangerous

 explosive, max. pressure: MPa, shattering power: MPa/s

 another - specify:

Dust granulometric structure (by specific density) - method:

a (µm)

Z (% mass.)

Chemical analysis (% mass):

ESP REQUIREMENTS

Kind of ESP delivery: new reconstruction general overhaul

 another - specify:

Dust loading requirements at the ESP outlet:

 normal gas conditions (0°C, 101 325 Pa, wet gas) mg/m³_N

 reference gas conditions (0°C, 101 325 Pa, 0 % vol. H₂O, % vol. O₂) mg/m³_R

 another gas conditions, specify: mg/m³

ESP efficiency requirements: none yes - specify: %

Installation:

 one common ESP for all outlets of one source

 individual ESP for each source outlet

 one common ESP for more sources - number:

 another - specify:

Number of fans for one ESP: before the ESP: behind the ESP:

ESP REQUIREMENTS

Delivery scope:

complete induced draught, incl. ESP - all-in contract

ESP only (inlet/outlet flange), incl. accessories

another - specify:

ESP location:	outside	inside	another - specify:			
Space limitation for ESP location:	width:	m	length:	m	height:	m
Free space under ESP bottom hopper flange:		m	measured from:			
Max. design temperature for ESP loading:		up to 300°C	another - specify:			
Max. design pressure for ESP loading:		±3,5 kPa	another - specify:			
Max. loading of ESP stairs and platforms:		2,0 kN/m ²	another - specify:			
Wind loading of ESP:		kN/m ²	Snow loading of ESP:		kN/m ²	
Unusual ESP painting requirements:		no	yes - specify:			

OTHER REQUIREMENTS

Prepared by:

Date: