

Fiji Electricity Authority Generation 25-May-17

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2 Specification

2.1 General Information

The function of the air channel is to channel the hot air from the generator's radiator to the outside the power station and seal the heat from returning back to the station. There are 5 generators that require channels;

- G2 CAT3516
- G3 CAT3516
- G4 CAT3516
- G5 Cummins QSK60
- G11 Cummins QSK60

The channel must be large enough to encompass the radiator but smaller than the wall opening. Recommend open be parallel dimension to the radiator extruding out and that all the wall opening between channel and wall be seal off.

2.2 Important Environment Condition

- Temperature: >60°C (Expelled heat from the radiator unit)
- Humidity: <70%

2.3 <u>Dimensions</u>

2.3.1 CAT 3516 Air Channel

The CAT radiator are with a dimension of;

- Height: ~2300mm
- Width: ~2300mm
- Distance between the radiator and wall: ~2800mm (Length of the Air Channel)

Wall Opening Dimension;

- Height: ~3400mm
- Width: ~3000mm

2.3.2 Cummins QSK60 Air Channel

The CAT radiator are with a dimension of;

- Height = 3100mm
- Width = 2250mm
- Distance between the radiator and wall = ~1000mm (Length of the Air Channel)

Wall Opening Dimension;

- Height = 3400mm
- Width = 3000mm

3 Scope of Works

- 1. Fabricate and install air channel with steel wall, fame & supports linking the generator radiator and extruding to the exterior wall. Include supply for material & labour.
- 2. Paint inner wall of the channel with high temperature paint that capable of withstanding temperatures around 60°C.
- 3. Bolt the structure to wall and to the radiator sealing the air and containing an venting the heat outwards.
- 4. Add insulation with covers on the outer wall of the air channel if need be.
- Fabricate enclosure for sealing the space between the wall and air channel tunnel. Note, the CAT exhaust pipes are installed through the same wall opening as shown in the following figures, enclose appropriately.

4 Site Photos

4.1 CAT 3516 Sets



Figure 1 CAT Set outside view



Figure 2 CAT sets inside view

Cummins QSK60 Sets



Figure 4 Cummins QSK60 set outside view



Figure 3 Cummins QSK60 inside view

5 Price Schedule

MR 150/2017 - Fabricate & Install Air Channel for Generator Radiator at Labasa Power Station

ltem	Item Description	Quantity	Unit Price	Total Price Currency:
1	Fabricate & Install steel air channel for the Generator's radiator unit. This include support, frame and vent wall			
2	Painting and finishing for the channel wall for carting high temperatures (Surface protection from the expelled heat)			
3	Insulation of the venting wall if required			
4	Fabricate closures for sealing the space between the wall and air channel tunnel			
5	Accommodation & Mobilization to Site			
6	Transportation of Materials to Site			
	TOTAL (VEP)			
	VAT 9%			
	TOTAL (VIP)			

Notes:

- 1. Ensure site HSE rules are followed at all times.
- 2. Contractor to verify all drawing measurements onsite
- 3. All Sub-contractors to be used for any part of the works are to be declared.
- 4. Contractor shall provide all materials, tools equipment and labour necessary to perform works.
- 5. A detailed work plan to be provided with expected date for the works.
- 6. FEA financial terms are applicable for these works. Any advance payment will require a bank guarantee.
- 7. Site Visit mandatory

Submission of Tender

<u>Two (2) hard copies</u> of the tender bids in sealed envelope shall be deposited in the tender box located at the Supply Chain Office at the FEA Head Office, 2 Marlow Street, Suva, Fiji.

Courier charges for delivery of Tender Document must be paid by the bidders.

This tender closes at 4:00 p.m. (16.00hrs Fiji time) on Wednesday 12th July, 2017

Site Visit: FEA's Labasa Power Station at 11.00 am on Wednesday 28th June, 2017

Each tender shall be sealed in an envelope with:

The envelope bearing only the following marking:

TENDER No. MR 150/2017

Fabrication and Installation of Air Channel for Generator Radiators at FEA's Labasa Power Station

The Secretary, Tender Committee Fiji Electricity Authority Supply Chain Office Private Mail Bag, Suva

It must also indicate the name and address of the tenderer on the reverse of the envelope.

All late tenders, unmarked Envelopes and envelopes without bidder's name and address on the reverse on the envelope will be returned to the Tenderers unopened. (Bids via e-mail or fax will not be considered).

The bidders must ensure that their bid is inclusive of all Taxes payable under Fiji Income Tax Act and must have the most current Tax Compliance Certificate.

For further information or clarification please contact our Supply Chain Office on phone (+679) 3224360 or (+679) 9991587.