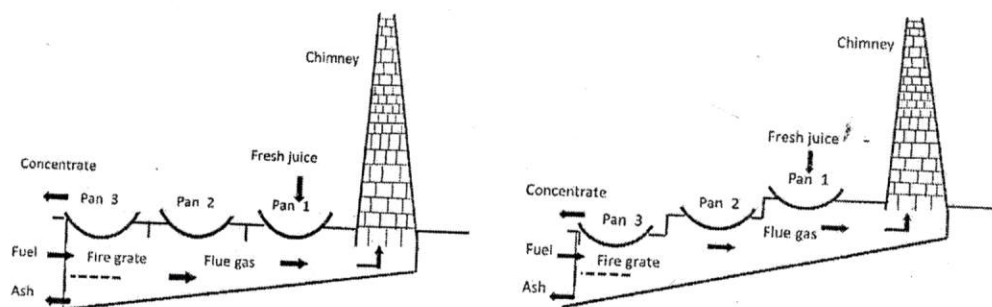




CENTRAL POLLUTION CONTROL BOARD
(Ministry of Environment, Forest and Climate Change, Govt. of India)
'Parivesh Bhawan', East Arjun Nagar
Shahdara, Delhi-110032

Guidelines for Pollution Control in Kolhus (Jaggery Units)

1. The *Kolhus* shall not be allowed to set up at locations within 0.5 km distance from approved habitation, schools, hospitals and the sensitive zones.
2. Only dried bagasse, wood and the agricultural residues/wastes shall be used as fuel. In no case rubber, used tyres, plastic etc. shall be fired in furnace.
3. Improved/energy efficient furnace shall be used by *Kolhus*. The furnace shall be made of masonry bricks or refractory bricks. Use of mud or soil in place of bricks should be avoided. The furnace shall be constructed in such a way that it ensures multi-pan (more than one pan in series) heating as shown in Figure(s) below for utilisation of heat contained by flue gases. The Pan 3 is used for evaporation of the juice to achieve the desired concentration for making Jaggery/*Gur*. The hot flue gases further transfer heat to preheat the Pan 2 and Pan 1.



The number of Pans may range from 2 to 5 depending upon the design of furnace. As the flue gas transfer the heat to the Pan, its temperature reduces. The remaining heat in the flue gas is further utilised to preheat the juice in the subsequent Pans. The *Kolhus* with production capacity of ≤ 2 MT/day have a choice to adopt either single pan or multi-pan arrangement.

4. A flap shall be installed on fuel feed hole of furnace to control excess air. There shall be provision of fire grate for efficient burning of fuel in the furnace. The ash generated would be collected from bottom of the furnace. A provision of baffles in flue gas path leading to stack (chimney) should be made to contain the particulate matter.
5. The height of stack shall be prescribed by the State Pollution Control Board depending upon the local conditions, but it shall not be less than 10 m. The *Kolhus* without stack shall not be permitted.
6. The limit of particulate matter (PM) in flue gas shall be prescribed by the State Pollution Control Board depending upon the local conditions, but it shall not be more than 500 mg/Nm³.
7. The solid wastes generated from the *Kolhus* shall be reused or properly disposed. The bagasse shall be used as fuel in the furnace. Scum collected from pan and ash shall be utilised as soil conditioner in agricultural land.
8. The washings of pans shall be disposed through soak pit.
9. The *Kolhus* shall ensure cleanliness and hygienic conditions in the premises.

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