

# PITTSBURGH-DES MOINES STEEL COMPANY

OFFICES:  
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TANKS, TOWERS, STRUCTURAL STEEL, BRIDGES,  
MUNICIPAL WATERWORKS  
& INCINERATORS

WORKS:  
PITTSBURGH, PA.  
DES MOINES, IA.

CABLE ADDRESS: "PITTDemoIN" NEW YORK  
CODE: WESTERN UNION 5 LETTER EDITION

NEVILLE ISLAND, P. O.

REFERENCE Wheelwright, Ky.

Pittsburgh, Pa.

February 10, 1941

*Capacity 7 1/2 Tons per 24 hrs*

Mr. H. O. Zimmerman  
Chief Engineer  
Inland Steel Company  
Wheelwright, Kentucky

Dear Sir:

We learned through our Mr. W. W. Hendrix that your operator was having some difficulty in the operation of the small incinerator plant recently completed by us. Part of these troubles will correct themselves through a matter of time and his increased experience in meeting the variable character of the refuse fuel from day to day.

This plant will burn a combined mixture of refuse containing 60% of normal garbage and 40% of combustible refuse at the proper temperature without the need for any additional fuel.

This plant has a guaranteed burning capacity of 625 pounds per hour and therefore it is inadvisable and improper to charge it at a rate greatly in excess of that figure per hour.

The clear volume of the furnace chamber is about  $82\frac{1}{2}$  cubic feet or approximately 3 cubic yards. The approximate weight of refuse with 60-40 mix as above mentioned is about 600 pounds per cubic yard. Due to the necessity for leaving certain space for the function of the burning, it is not desirable to have more than  $1\frac{1}{2}$  to 2 cubic yards of material in the furnace at any one time and the material should be charged in at the rate of slightly over 1 cubic yard per hour.

Inasmuch as the wet refuse must be dried prior to its use as fuel, it is essential that a proper interval of time be given to a fresh charge for the proper drying of the same and then as indicated on the directions sent to you, this dried refuse should be stoked down to the front of the furnace to act as fuel before an additional charge is placed on the drying hearth. The plant requires fuel of some sort in order to generate heat and it cannot burn the wet garbage until the moisture has evaporated by the action of the flame passing across it. This is very essential as you can readily see and your operator will eventually find out.

As indicated in the instructions, the blower should not be required when starting up the furnace inasmuch as enough air will be admitted in through the ash door to accomplish the early stages of burning. Later, if you want to step up the rate of combustion or you want to burn down the last of the refuse in the grate, the blower can be used for a while and then you can go back to natural draft operation as an excess amount of air will hinder the fire rather than help it just the same as in ordinary boiler practice. Generally speaking, I am inclined to the belief, without