REPORT FORM FOR TEST OF LOW PRESSURE HEATING BOILER

1.—Name and catalogue rating.....
2.—Grate surface; width....., length....., area.....
3.—Date of test.....No. of test.....
4.—Normal operating firing periods.....
5.—Duration of test .....
6.—Times fired .....
7.—Longest interval between firing.....
8.—Fuel, name .....Size.....
9.—Fuel, calorific value.....
10.—Fuel capacity pounds .....
11.—Fuel available (less re-kindling reserve).....
12.—Fuel available. Time will last, hours.....
13.—Fuel weight as fired, lb.....
14.—Fuel moisture, per cent.....
15.—Fuel weight fired, less moisture, lb. = (13)-(14).....
16.—Fuel weight unburned (including.. lb. recovered from ash pit).. lb.
17.—Fuel burned in test, lb. = (15)-(16).....
18.—Fuel burned per hour, lb.....
19.—Fuel burned per sq. ft. grate per hour, lb.....
20.—Ashes, lb. .....
21.—Clinker, lb. .....
22.—Combustible, per hour, lb.....
23.—Temperature, steam or flow, fahr.....
24.—Temperature, feed water or return, fahr.....
25.—Temperature, gases leaving boiler.....
26.—Temperature boiler room.....
27.—Temperature outside air .....
28.—Draft intensity in smoke pipe .....
29.—Draft intensity over fire .....
30.—Draft intensity in ash pit .....
31.—Friction loss through flue .....
32.—Friction loss through fuel .....
33.—Friction loss through inlet .....
34.—Steam pressure in boiler by gage.....
35.—Steam pressure in receiver by gage.....
36.—Percentage of moisture in steam.....
37.—Percentage of CO_2 in escaping gases.....per cent.
38.—Weight of water fed to boiler.....
39.—Weight of water evaporated, corrected for moisture in steam.....
40.—Equivalent evaporation from and at 212 degrees = (39) x total heat in steam above feed temp. ÷ 970.....
41.—Evaporation per hour of test.....
42.—Evaporation per lb. of coal as burned = (41) ÷ (18).....
43.—Evaporation per lb. of combustible = (41) ÷ (22).....
44.—Capacity, total available B.t.u. = (41) x total heat above feed temp.
45.—Capacity per hour, B.t.u.....
46.—Capacity per sq. ft. radiation = (45) ÷ 240.....
47.—Efficiency of boiler = (45) ÷ (22) x B.t.u. per lb. combustible.....
48.—Efficiency of boiler and grate = (45) ÷ (18) x B.t.u. per lb. coal
49.—Losses, grate .....
50.—Losses, stack gas .....
51.—Losses, incomplete combustion .....
52.—Losses, unaccounted for .....
53.—Smoke pipe, size ..... Length.....
54.—Chimney, size ..... Height.....
55.—Draft ..... Inches.....

RATING

The rating as determined by this test shall be calculated by the following formula,— $\frac{C \times H}{T}$ **= Boiler capacity per hour in B.t.u.**

C = Number of pounds of dry fuel consumed (18)
T = Duration of firing period.
H = Total B.t.u. available at the boiler outlet per pound of dry fuel as shown by test, or (18) x (9) x (48)

Note.—The length of firing period will depend upon the size of boiler, kind of fuel and purpose of test.

REPORT OF COMMITTEE ON UNIFORM CONTRACT AND SPECIFICATIONS

(Transactions of A. S. H. V. E., Vol. IX, p. 336.)

The Society approved a revised uniform contract and specifications with the conditions classified as follows:

Qualifications of Bidders	Removal of Rubbish
Drawings and Specifications	Rules, Permits and Responsibilities
Assigning or Subletting	Insurance
Intention	Patent Devices
Architect or Engineer	Final Tests and Acceptance
Material and Workmanship	Payments
Alteration	Rejection of Material
Delay	Temporary Use of Apparatus
Care of Work	Arbitration

REPORT OF COMMITTEE ON CODE FOR TESTING DIRECT RADIATION HEATING PLANTS

(Transactions of A. S. H. V. E., Vol. IX, p. 347.)

The two fundamental requirements upon which the Code is based are:

1. That during the test the temperature of steam or water maintained in the radiators shall be the same as that allowed by the contract to be maintained in order to maintain a temperature of 70 deg. in the building when it is zero outside.
2. That during the test the difference between the temperature of the steam or water in the radiator and the temperature maintained inside of the building, shall not be less than 0.8 of the difference between the temperature of the steam or water in the radiator and the temperature maintained in the building when it is zero outside.

NOTE.—There is also a third requirement, viz., "that no test to determine the heating capacty of a system, to mantain a temperature of 70 deg. in a building during zero weather, shall be made when the temperature outside is greater than 48 deg., even although the allowable temperature under requirement 2 of the Code should be greater than 48 deg."

REPORT OF COMMITTEE ON STANDARD SIZES OF STEAM AND RETURN MAINS

(Transactions of A. S. H. V. E., Vol. XIII, p. 24.)

The standard recommended is "the use of such a velocity as will require a difference of pressure of *not more* than 1 oz. to 100 ft. in straight pipe to maintain it."

NOTE.—A new Committee, the Committee on Steam and Return Main Sizes was appointed at the recent Annual Meeting to review this former standardization work and bring it up to date.