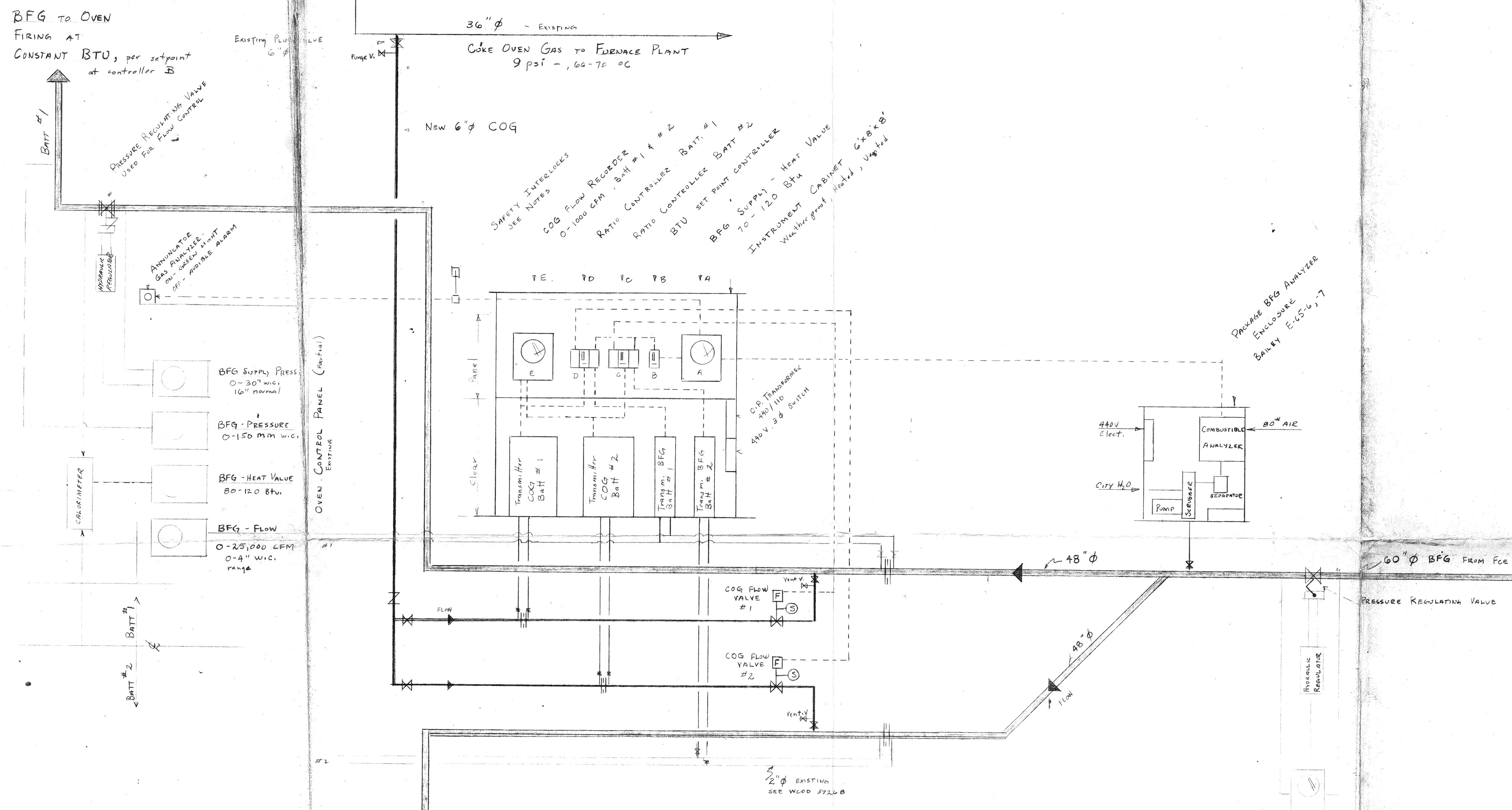


SECTS
A-A
B-B
C-C
D-D
E-E
F-F
G-G
H-H
J-J
K-K
L-L
M-M

A-

BILL OF MATERIAL		
ITEM NO.	NO. REQD.	DESCRIPTION



BFG TO OVEN
FIRING AT
CONSTANT BTU, per setpoint
at controller B

EXISTING PIPE
6" φ

36" φ - EXISTING
COKE OVEN GAS TO FURNACE PLANT
9 PSI - 60-70 °C

New 6" φ COG

SAFETY INTERLOCKS
SEE NOTES
COG FLOW RECORDER
0-1000 CFM, BATT #1 & #2
RATIO CONTROLLER BATT #1
RATIO CONTROLLER BATT #2
BTU SET POINT CONTROLLER
BFG SUPPLY - HEAT VALUE
70 - 120 BTU
INSTRUMENT CABINET 6'x2'x2'
Weather proof, Heated, Vented

Pressure Regulating Valve
Used For Flow Control

ANNUNCIATOR
GAS ANALYZER
ON - SPEED POINT
OFF - AVAILABLE ALARM

BFG Supply Press
0-30" w.c.
16" normal

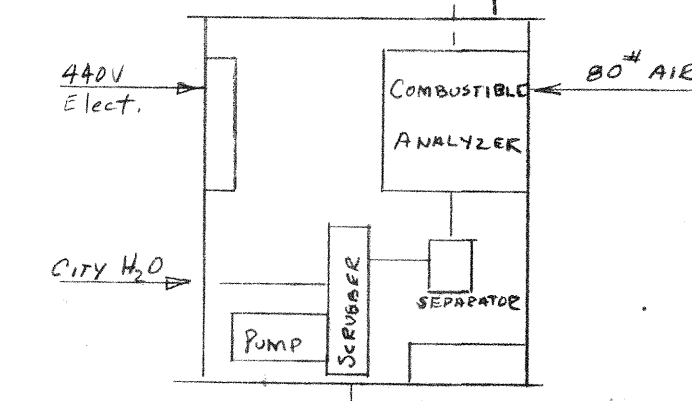
BFG Pressure
0-150 mm w.c.

BFG - HEAT VALUE
80-120 BTU

BFG - FLOW
0-25,000 CFM
0-4" w.c.
range

OVEN CONTROL PANEL (Partial)

Package BFG Analyzer
ENCLOSURE
BATTERY E-45'6, 7



60" φ BFG From Furnace Plant
(.002 to .009 gr/lb)
120°F max

Pressure Regulating Valve

BFG Supply Pressures
From Furnace Plant
(0-30" w.c. H₂O)
TO OVEN
TO OVEN
Regulate to 25" w.c. if available
40-30 °F

DESCRIPTION

(A) INCOMING BFG BTU VARIATION (80-95) IS RECORDED AND A PROPORTIONATE SIGNAL SENT TO A SET POINT CONTROLLER. (B) THIS SIGNAL IS CORRECTED FOR BFG FLOW & FORWARDED TO A RATIO CONTROLLER (C) & (D) WHICH PRODUCE A SIGNAL FOR COG FLOW ADJUSTMENT AS REQUIRED TO MAINTAIN THE BTU SET POINT. (COG HEAT VALUE IS 530 BTU/SCFM.) COG FLOW PROGRAM IS RECORDED ON 24 HOUR CIRCULAR CHART (E)

COG FLOW VALVE (F) OPERATOR SHALL BE DESIGNED FOR AUTOMATIC SAFETY SHUTOFF (G) IN THE EVENT ELECTRIC POWER FAILURE, LOSS OF BFG OR COG PRESSURE, LOSS OF AIR OR WATER PRESSURE AT ANALYZER, AND LOSS OF ANALYZER ALL SERVICES TO HAVE GAUGES AND INDICATORS FOR TROUBLESHOOTING.

SYSTEM SHALL HAVE CAPABILITY OF AUTOMATIC PROPORTIONAL SET POINT CONTROL WITH/WITHOUT OPERATION OF BTU ANALYSIS COMPONENTS BY MANUAL CHANGEOVER. COG FLOW SHALL FOLLOW BFG FLOW THRU UNDERFIRING REVERSALS OR BFG AVAILABILITY.

440 V POWER, AIR, CITY WATER SHALL SOURCE AT THE OVEN AREA.

ALL VALVES, ORIFICES, ETC SHALL HAVE ACCESS PLATFORMS

FITTINGS SHALL BE ALL IRON OR STAINLESS STEEL. ALL EQUIPMENT & WORK TO BE FUME CORROSION RESISTANT. CABINETS TO HAVE HEATERS, BE EPOXY COATED, ETC.

EXISTING BFG
NEW PIPING
NEW COG
ELECTRIC - NEW
EXISTING - ALL

DATE 3/24/69

REVISIONS

DEPT.	MACHINE NO. & NAME	NEXT ASSEMBLY

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40266	PIPING ARRAY TO BATTERY
37285	BFG MAIN TO OVENS - ARRAY
37268	BFG REGULATOR - ORIFICE LOCATION

REFERENCE DRAWINGS LISTED ABOVE

**INTERLAKE STEEL CORPORATION
CHICAGO, ILLINOIS**

ER- 1374-C	PROJECT	COST CENTER
TITLE OR SECTION	SECT. NO.	

BTU CONTROL - BLAST FURNACE
GAS TO COKE OVENS

DR.	CH.	APP.
DATE 3/24/69	DO NOT SCALE WORK TO DIMENSIONS	
SCALE	PCA- 1374-C	