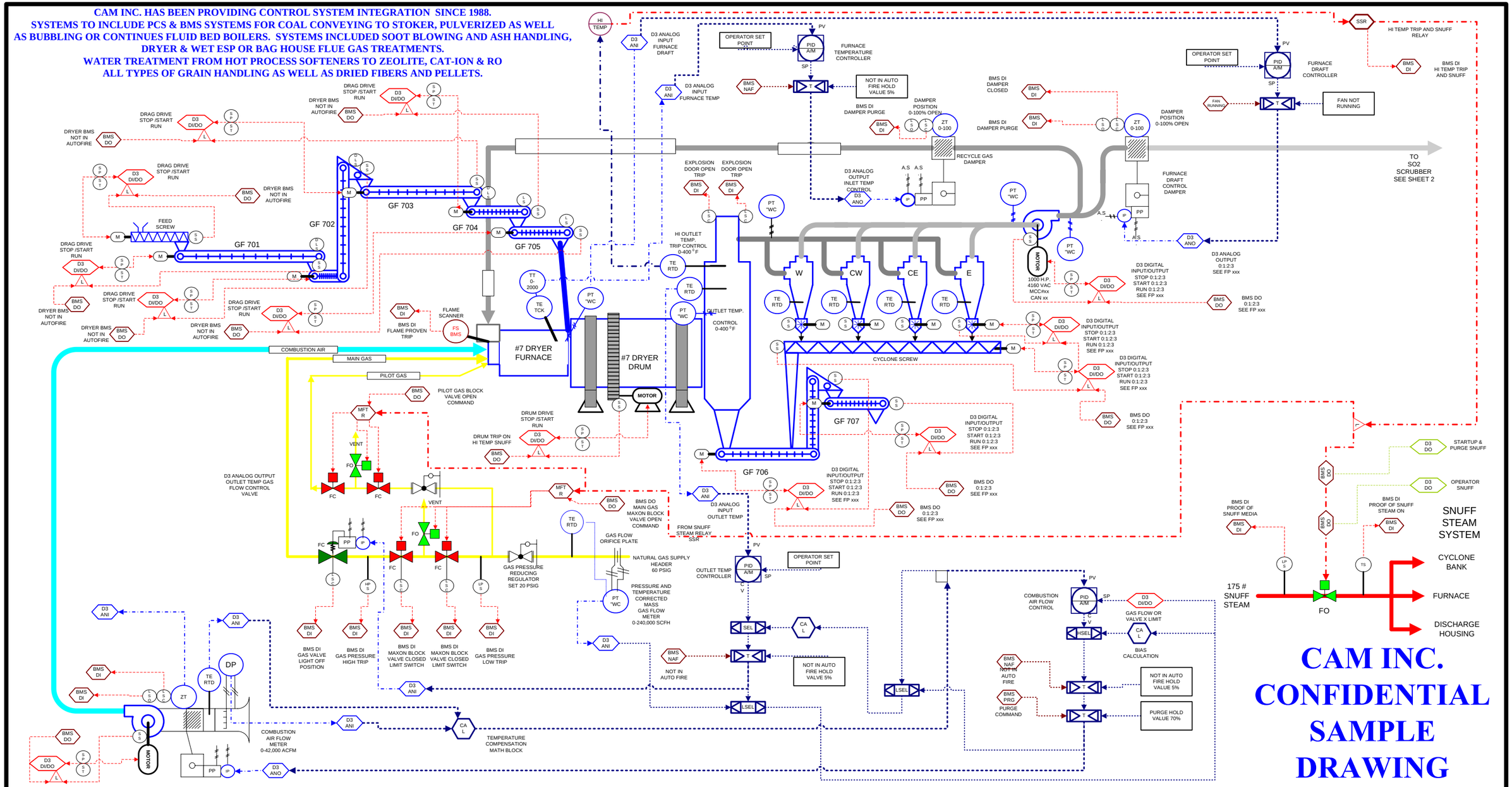
CAM INC. HAS BEEN PROVIDING CONTROL SYSTEM INTEGRATION SINCE 1988.
SYSTEMS TO INCLUDE PCS & BMS SYSTEMS FOR COAL CONVEYING TO STOKER, PULVERIZED AS WELL AS BUBBLING OR CONTINUES FLUID BED BOILERS. SYSTEMS INCLUDED SOOT BLOWING AND ASH HANDLING, DRYER & WET ESP OR BAG HOUSE FLUE GAS TREATMENTS.
WATER TREATMENT FROM HOT PROCESS SOFTENERS TO ZEOLITE, CAT-ION & RO
ALL TYPES OF GRAIN HANDLING AS WELL AS DRIED FIBERS AND PELLETS.



CAM INC.
CONFIDENTIAL
SAMPLE
DRAWING

D3 DIGITAL INPUT/OUTPUT STOP 0:1:2:3 START 0:1:2:3 RUN 0:1:2:3 SEE FP xxx
BMS DO 0:1:2:3 SEE FP xxx

DOOR LIMIT SWITCH
HIGH PRESSURE SWITCH
LIMIT SWITCH CLOSED
LIMIT SWITCH OPEN
LOW PRESSURE SWITCH

FC FAIL CLOSED VALVE
FO FAIL OPEN VALVE
D3 DI/DO D3 DCS MOTOR STOP / START/RUN INPUT OUTPUT GROUP
LOGIC OR HARD WIRED INTERLOCK
FIELD STOP START SWITCHES

D3 ANI D3 DCS ANALOG INPUT POINT
D3 ANO D3 DCS ANALOG OUTPUT POINT
BMS DO BURNER MANAGEMENT SYSTEM DIGITAL OUTPUT
BMS DI BURNER MANAGEMENT SYSTEM DIGITAL INPUT

MFT R MAIN FUEL TRIP RELAY POWER RELAY AND OR FO CONTACTS
SSR SNUFF STEAM RELAY AND OR FO CONTACTS
115VAC DEVICE FOR MOTOR CONTROL WIRING
ANALOG INPUT OR OUTPUT WIRING

TYPICAL CAM INC. PCS & BMS ENGINEERING P&ID DEVELOPMENT
CAM PROVIDED SYSTEM DESIGN PANEL BUILD AND ALL PROCESS CONTROL PROGRAMMING DEVELOPMENT TO INCLUDE DCS AND BMS FUNCTIONS.
ALL CONVEYING EQUIPMENT DRAGS & SCREWS WERE INTERLOCKED WITH ZERO SPEED SWITCHES & BACK LEG DOOR LIMIT SWITCHES.
FAN & CONVEYING SYSTEMS MOTION SPEED SWITCHES AS WELL AS DRUM DRIVE MOTION SWITCHES WERE HARD WIRED INTO THE BMS SYSTEM.
FIRE PREVENTION SYSTEM WAS ALSO UNDER BMS CONTROL.
SYSTEM INCLUDED NEW LOW NOx NATURAL & WASTE GAS BURNERS AND BMS FOR DOWN STREAM RTO FOR VOC EMISSIONS CONTROL
ENTIRE SYSTEM WAS DESIGNED TO MEET OR EXCEED EPA TITLE 5 INITIATIVE

DRYER P&ID

1	B. D. GUTHRIE	2-05-03 original draft by BDG

TYPICAL CAM INC.
FIBER DRYER P&ID
DRAWING