START

0012420

Hanford Waste Vitrification Plant
Westinghouse Hanford Company
P. O. Box 1970
Richland, Washington 99352

FLUOR DANIEL, INC.

Date: JANUARY 15,1991

Reference: Hanford Waste Vitrification Plant
DOE Contract DE-AC06-86RL10838
Fluor Contract 8457

Attention: Mr. Mike Gordon
State of Washington
Department of Ecology (PV-11)
Olympia, WA 98504-8711

Transmittal No.: WDOE-035

Gentlemen:

TRANSMITTAL

We enclose 2 copies of the items listed below. These are issued per US-DOE request.

Response due to Fluor: N/A
Responds to: N/A

Number	Rev.	Date	Title
CONTROL COPIES #25,26			HVAC FLOW & CONTROL DIAGRAM SYSTEM 05
H-2-129800 SHT 1 OF 1	02	12/28/90	VITRIFICATION BUILDING ZONE I COMPOSITE
H-2-129815 SHT 1 OF 2	02	12/28/90	VITRIFICATION BUILDING ZONE II AREAS
H-2-129881 SHT 1 OF 3	02	12/28/90	CANISTER STORAGE BUILDING OPERATING AREA
H-2-129823 SHT 5 OF 6	02	12/28/90	VITRIFICATION BUILDING ZONE II ANALYTICAL LABORATORY HOODS
H-2-129823 SHT 6 OF 6	02	12/28/90	VITRIFICATION BUILDING ZONE II ANALYTICAL LABORATORY HOODS
H-2-129891 SHT 1 OF 2	02	12/28/90	FAN HOUSE FAN ROOM
H-2-129891 SHT 2 OF 2	02	12/28/90	FAN HOUSE FAN ROOM
H-2-129892 SHT 1 OF 3	02	12/28/90	FAN HOUSE ELEC.HVAC EQUIP.ROOM,F.O.S. STORAGE, SAMPLE STORAGE & BATTERY ROOM
H-2-129892 SHT 3 OF 3	02	12/28/90	FAN HOUSE ELEC.HVAC EQUIP.ROOM,F.O.S. STORAGE, SAMPLE STORAGE & BATTERY ROOM
H-2-129901 SHT 2 OF 2	02	12/28/90	SWITCHGEAR/GENERATOR BLDG. NORMAL AND STANDBY SWITCHGEAR ROOM SUPPLY

Distribution:
Reference: FRP-194, FUP-018
VPO/AME Corresp Cntrl Cntr, MSIN A5-10 w/0
P. Felise, WHC-RL (MSIN G6-16) w/1 cc#30
Environmental Data Management Center
(MSIN H4-51)w/1 cc#31
D. Duncan, US EPA, Region X w/0

Very truly yours,

R. N. Gibbons
Project Director

RNG:JLS:dc

9112127.1

VITRIFICATION BUILDING | SAND FILTER BLDG. | FAN HOUSE BUILDING

AIR HANDLING UNITS
(ONE STANDBY)

AH-05A-701 (PRE-FILTER (TYPICAL) / HIGH-EFF. FILTER (TYPICAL) / PH EL / CO CHW / OAX)
AH-05A-702 (PH EL / CO CHW / OAX)
AH-05A-703 (PH EL / CO CHW / OAX)
AH-05A-704 (PH EL / CO CHW / OAX)

DWG.# H-2-129802-1
DWG.# H-2-129802-2

BL-05A-711
BL-05A-712
BL-05A-713
BL-05A-714

SUPPLY FANS
(ONE STANDBY)

ARP HEADER (TYP.) — PC — ARP HEADER
086 SMEAR TEST/ EXIT TUNNEL
SUPPLY TUNNEL
036 CANISTER DECON. CELL
DWG.# H-2-129803
MC-CDC TRANSFER TUNNEL 044 — TO MC
DWG.# H-2-129804
326 CRANE BUS BAR MAINT. CORRIDOR
320 CRANE MAINT. AREA
222 CANYON
067 RAIL-ROAD WELL
INF.
066 CONT. DECON. & MAINT. CELL
DWG.# H-2-129805

DWG.# H-2-129806-1
FROM CHR DURING EMERGENCY H-2-129813-8 C2
FROM CHR DURING EMERGENCY H-2-129813-8 C2
052 REMOTE EQUIPMENT DECON CELL
092 STAGED EQUIP. LAYDOWN CELL
055 HEME CELL
047 HELTER CELL
SBS 043
FROM MC/CDC
050 LAYDOWN AREA
048 CHEMICAL PROCESS CELL
DWG.# H-2-129806-2
080 RLST VAULT
RPVV FILTER H-2-123251-9 B8

ZONE 1 EXHAUST TUNNEL
MOG / PVV DISCHARGE COOLER H-2-123250-15 C2
RPVV EXHAUSTER H-2-123251-12 B2
PROCESS STEAM GEN. RELIEF VALVE DISCH. H-2-123352-1 E2
DWG.# H-2-129807-1
ARP HEADER — PC — 4 SECTION
SAND FILTER
CONSTRUCTION BYPASS
EMERGENCY BYPASS
4 SECTION
4 SECTION
4 SECTION
CONSTRUCTION BY-PASS
DWG.# H-2-129808-3

PF-05B-701
WORKSPACE
PF-05B-702
PF-05B-703
WORKSPACE
PF-05B-704
DWG.# H-2-129808-1
PF-05B-705
WORKSPACE
PF-05B-706
PF-05B-707
WORKSPACE
PF-05B-708
DWG.# H-2-129808-2
PF-05B-709
WORKSPACE
PF-05B-710
EXHAUST FILTER PLENUM (TYP. 10)

FC
BL-05B-721
DWG.# H-2-129809-1
BL-05B-722
DWG.# H-2-129809-2
BL-05B-723
DWG.# H-2-129809-3
BL-05B-724
DWG.# H-2-129809-4
EXHAUST FANS
(ONE STANDBY)
TO ATMOS.
EFFLUENT MONITORING ISO-KINETIC SAMPLING STATION
ZONE 1 STACK
DWG.# H-2-129818-1

EMERGENCY BYPASS FILTER PLENUM (TYP. 4)
PF-05B-713
WORK SPACE
WORK SPACE
DWG.# H-2-129807-2
PF-05B-714
WORK SPACE
WORK SPACE
PF-05B-715
(STANDBY)
PF-05B-716
(STANDBY)
DWG.# H-2-129807-3

FROM ZONE II SERVICE CORRIDOR H-2-129813-7 A2
BL-05Z-731
BL-05Z-732 SUPPLY FAN
(ONE STANDBY)
DWG.# H-2-129819-1
ARP HEADER — PC
PF-05Z-721
SUPPLY FILTER PLENUM
DWG.# H-2-129820-1
CO CHW
HU
174 SAMPLE CELL
176 ANALYTICAL CELLS
DWG.# H-2-129821-1

GENERAL NOTES:

A. REFER TO DRAWING H-2-123001 "LEGEND OF SYMBOLOGY FOR PROCESS FLOW AND PIPING AND INSTRUMENT DIAGRAMS" FOR AN EXPLANATION OF SYMBOLS AND ABBREVIATIONS.

B. FIRE DAMPER LOCATIONS AND REQUIREMENTS WILL BE VERIFIED IN DETAILED DESIGN.

REV NO	DATE	REVISION DESCRIPTION	APPROVAL INITIALS
02	11/19/90	ADDED PROCESS STEAM GENERATOR RELIEF VALVE DISCHARGE CONNECTION TO EXHAUST TUNNEL (SCN-0004)	SA TC RT MM; JS FB DC RG
01	10/18/90	ISSUED FOR FLUOR DANIEL	SA TC RT MM
00	9/24/90	CONTROL PER CR HVVP-0446-2	JS FB DC RG
		RELEASED FOR DETAILED DESIGN	SA TC RT MM; JS FB DC RG

ENGINEERING RELEASE
REV. ____ DATE ____
ERD ____

PROJ. MGR.	R.N.GIBBONS	9/21/90
DES. MGR.	D.P.CHAWLA	9/21/90
ENGINEERING MGR.	F.G.BROOKS	9/21/90
SYSTEMS MGR.	J.L.SMETS	9/19/90
TASK LEADER	M.G.MERCADO	9/19/90
S E C TASK LEADER	R.G.TAGNEY	9/19/90
DESIGNER	T.Y.CHEN	9/18/90
CHECKED	S.ANVAR	9/19/90
DRAWN	M.VERGEL-DE-DIOS	9/13/90
CLASSIFICATION	NONE	BY: NOT REQ'D

U.S.DEPARTMENT OF ENERGY
Richland Operations Office
DE - AC06-86RL10838

FLUOR DANIEL, INC.
ADVANCED TECHNOLOGY DIVISION

HVAC FLOW & CONTROL DIAGRAM
SYSTEM 05
VITRIFICATION BUILDING
ZONE 1 COMPOSITE

PROJECT TITLE: HANFORD WASTE VITRIFICATION PLANT

PROJECT	FLUOR CONTRACT NO.	VHK NO.
B-595	8457	3228

SCALE: NONE — SHEET NO.

DRAWING NUMBER: H-2-129800 — SHEET 1 — OF 1 — REV 02

AA400012 / 01
12-14-90 - 08:33
HC

9111212

9111213

EH-05C-009
ELECTRIC DUCT HEATER
DESIGN CAPACITY = 2 KW

DCS

ZONE II SUPPLY AIR H-2-129814-1 E2 — 2850 SCFM — FD-05C-060
ZONE II SUPPLY AIR H-2-129814-1 D2 — 790 SCFM — FD-05C-062
TIC-477 H-2-129814-1 E2
TIC-476 H-2-129814-1 E2
ZONE II SUPPLY AIR H-2-129814-1 C2 — 5150 SCFM — FD-05C-064
ZONE II SUPPLY AIR H-2-129813-8 C2
EH-05C-009
DN-05C-028
TIC-478 H-2-129814-1 E2
PDIT-157 H-2-129813-9 A8 — 500 SCFM

FD-05C-061
FD-05C-063
DN-05C-019
DN-05C-020
DN-05C-018
DN-05C-029

2750 SCFM
1050 SCFM
1350 SCFM
60 SCFM
730 SCFM
350 SCFM
2500 SCFM
900 SCFM

ZONE II EXHAUST AIR (VAV SYSTEM) H-2-129813-5 D2

CHANGE ROOM 090	CATCH TANK AREA 008	CORRIDOR 012	CORRIDOR 074	SDP ROOM 093	MONITOR/DECON ROOM 073 / SDP ROOM 065	CORRIDOR 013	EXIT TUNNEL OPERATING GALLERY 082
PDI 05D-906	PDI 05D-907A & B (TYP-2)	PDI 05D-908	PDI 05D-909	PDI 05D-911	PDI 03D-911	PDI 03D-910	PDI 05D-912

HIGH EFFICIENCY FILTER (TYP)

FD-05D-030 — 1950 SCFM — TO ZONE II EXHAUST PLENUM H-2-129816-5 C8
FD-05D-031
FD-05D-032 — 790 SCFM — TO ZONE II EXHAUST PLENUM H-2-129816-5 C8
FD-05D-033
FD-05D-034 — 5150 SCFM — TO ZONE II EXHAUST PLENUM H-2-129816-5 B8
FD-05D-035
500 SCFM — TO ZONE II EXHAUST PLENUM H-2-129813-9 A2

IAS
FY 230-703
FV 230-703
DOP TEST PORT (TYP.)
UPSTREAM SAMPLE PORT (TYP.)
PDIT 230-701
PDIT 230-702
FSL 230-703
FIC 230-703
FE 230-703
CHALLENGE AEROSOL PORT
RADIO BENCH HOOD
LH-230-001 VENDOR PACKAGED UNIT

TUNNEL LEVEL

GENERAL NOTES:

A. THREE DIGIT INSTRUMENT TAG NUMBERS ARE PREFIXED WITH 05C UNLESS A SIX DIGIT NUMBER IS SHOWN TO INDICATE ANOTHER SYSTEM.

B. FIRE DAMPER LOCATIONS AND REQUIREMENTS WILL BE VERIFIED IN DETAILED DESIGN.

NOTES:

(1) THE MULTI-STEP ELECTRIC HEATER POWER CONTROLLER SYSTEM INCLUDES A MULTI-STAGE STEP CONTROLLER AND A MODULATING SILICON CONTROLLED RECTIFIER (SCR) TO PROVIDE MODULATING CONTROL BETWEEN EACH SUCCESSIVE STAGE. LOW AIR FLOW AND HIGH HEATER TEMPERATURE CUTOUTS ARE ALSO INCLUDED.

SAFETY CLASS 3

REV. NO.	DATE	REVISION DESCRIPTION	APPROVAL INITIALS
02	11/29/90	DELETED FD-050-039 & FD-050-040	SA RF RT MM
		OCN-0001	JS FB DC RG
01	11/28/90	ISSUED FOR FLUOR DANIEL	SA RF RT MM
		CONTROL PER CR HVVP-0446-2	JS FB DC RG
00	9/24/90	RELEASED FOR DETAILED DESIGN	SA RF RT MM
			JS FB DC RG

ENGINEERING RELEASE
REV. ____ DATE ____
ERD ____

PROJECT ENGINEER R.N.GIBBONS	9/21/90
M.E. LEADER O.P.CHAVLA	9/21/90
ENGINEERING MGR F.G.BROOKS	9/21/90
SYSTEMS MGR J.L.SMETS	9/28/90
FACILITIES LEADER M.G.MERCADO	9/28/90
I & C FACILITIES LEADER R.G.TAGNEY	9/28/90
QA/QC MGR R.E.FLYE	9/28/90
DRAWN BY S.ANWAR	9/28/90
CHECKED BY C.Y.OSHIMOND	9/19/90
CLASSIFICATION NONE	DH NOT REQ'D

U.S. DEPARTMENT OF ENERGY
Richland Operations Office
DE - AC06-86RL10838

FLUOR DANIEL, INC.
ADVANCED TECHNOLOGY DIVISION

HVAC FLOW & CONTROL DIAGRAM
SYSTEM 05
VITRIFICATION BUILDING
ZONE II AREAS

PROJECT TITLE: HANFORD WASTE VITRIFICATION PLANT

PROJECT	FLUOR CONTRACT NO.	WBS NO.
B-595	8457	3228

SCALE: NONE — DRAWING NUMBER: H-2-129815 — SHEET 1 — OF 2 — REV. 02

AA481512 / 04
12-14-90 - 1009
HC

9111124

BL-05J-702 EXHAUST FAN
DESIGN CAPACITY: 8000 SCFM
ΔP: 1.75" W.C.
HP: 15

BL-05J-703 EXHAUST FAN
DESIGN CAPACITY: 8000 SCFM
ΔP: 1.75" W.C.
HP: 15

BL-05J-704 EXHAUST FAN
DESIGN CAPACITY: 8000 SCFM
ΔP: 1.75" W.C.
HP: 15

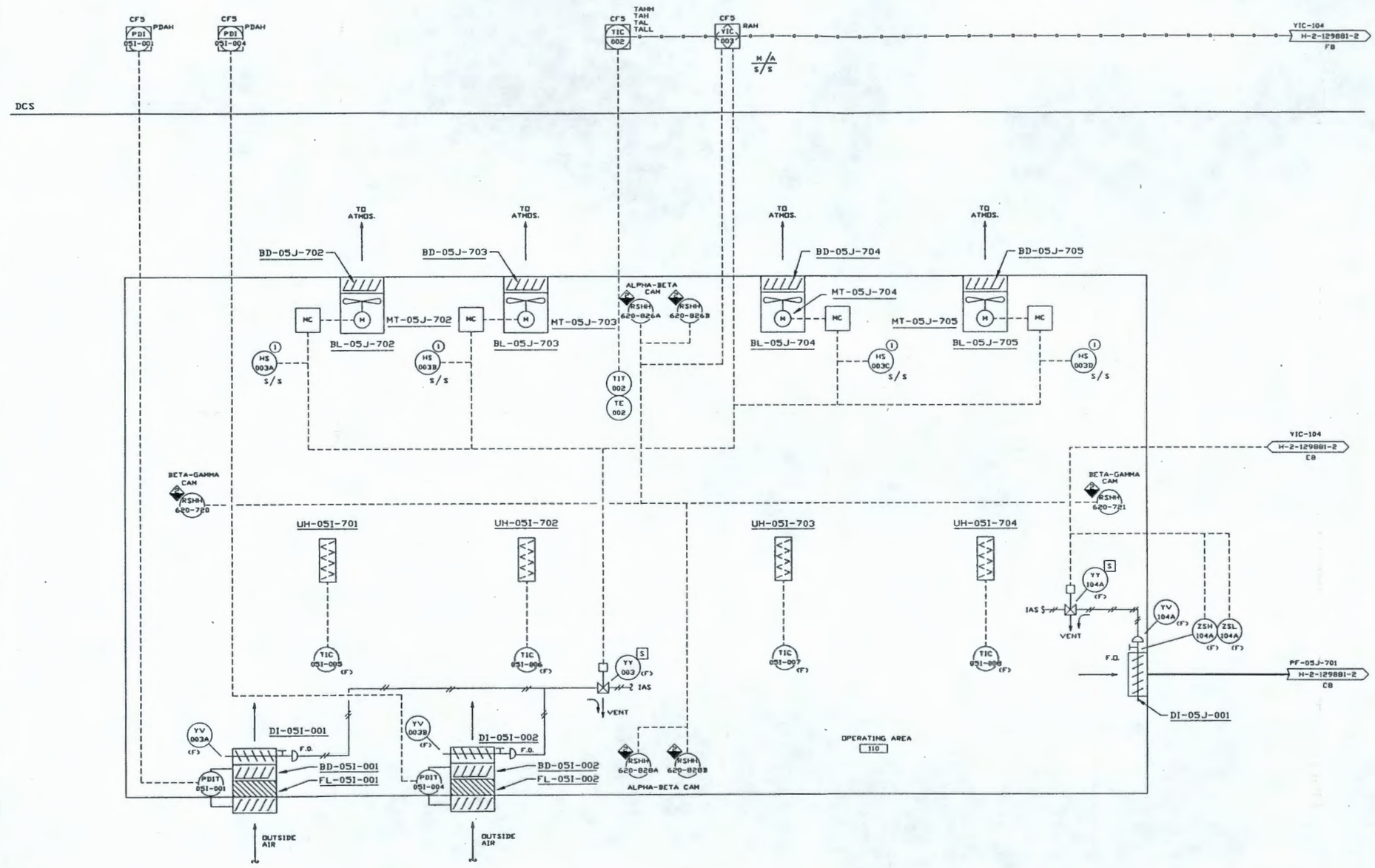
BL-05J-705 EXHAUST FAN
DESIGN CAPACITY: 8000 SCFM
ΔP: 1.75" W.C.
HP: 15

UH-051-701 ELECTRIC HEATER
DESIGN CAPACITY: 7.5 KW

UH-051-702 ELECTRIC HEATER
DESIGN CAPACITY: 7.5 KW

UH-051-703 ELECTRIC HEATER
DESIGN CAPACITY: 7.5 KW

UH-051-704 ELECTRIC HEATER
DESIGN CAPACITY: 7.5 KW



GENERAL NOTES:

A. THREE DIGIT INSTRUMENT TAG NUMBERS ARE PREFIXED WITH 05J UNLESS A SIX DIGIT NUMBER IS SHOWN TO INDICATE ANOTHER SYSTEM.

B. FOR DEFINITION OF LOGIC CONTAINED IN DIAMOND SYMBOLS, ◇, AND HEX SYMBOLS, ⬡, SEE PROCESS CONTROL DESCRIPTION (PCD) SPECIFICATION B-595-C-17500-DS-05J.

C. REFER TO DRAWING H-2-123001 "LEGEND OF SYMBOLOGY FOR PROCESS FLOW AND PIPING AND INSTRUMENT DIAGRAMS" FOR AN EXPLANATION OF SYMBOLS AND ABBREVIATIONS.

D. FIRE DAMPER LOCATIONS AND REQUIREMENTS WILL BE VERIFIED IN DETAILED DESIGN.

NOTES:

(1) THE LOCAL HANDSWITCH STATION WILL CONTAIN START AND STOP PUSHBUTTONS AND A SPRING RETURN KEYLOCK SWITCH, ALL WIRED DIRECTLY TO THE MC. THE START PUSHBUTTON WILL BE ENABLED ONLY WHEN THE KEY IS INSERTED AND TURNED. THE STOP PUSHBUTTON WILL STOP THE MOTOR AT ANY TIME.

SAFETY CLASS 2 AS NOTED

REVNO	DATE	REVISION DESCRIPTION	APPROVAL DETAILS
02	11/30/90	REVISED SAFETY CLASS DCN-0001	SA RT MM
			FB DC RG
01	11/28/90	ISSUED FOR FLUOR DANIEL	ZM SA RT MM
		CONTROL PER CR HWVP-0446-2	JS FB DC RG
00	9/24/90	RELEASED FOR DETAILED DESIGN	ZM SA RT MM
			JS FB DC RG

ENGINEERING RELEASE
REV. ____ DATE ____
ERD ____

SIGNATURE	DATE
WHC APPROVAL BY	
PROJ. MGR. R.N.GIBBONS	9/21/90
M.E. DISC. D.P.CHAWLA	9/21/90
ENGINEERING MGR. F.G.BROOKS	9/21/90
SYSTEMS MGR. J.L.SMETS	9/18/90
TASK LEADER M.G.MERCADO	9/18/90
E & C TASK LEADER R.G.TAGNEY	9/17/90
DESIGNER S.ATTAI	9/17/90
CHECKED Z.MILATOVIC	9/17/90
DRAWN J.SKORUPSKA	9/12/90
CLASSIFICATION NONE	BY NOT REQ'D

U.S. DEPARTMENT OF ENERGY
Richland Operations Office
DE - AC06-86RL10838

FLUOR DANIEL, INC.
ADVANCED TECHNOLOGY DIVISION

HVAC FLOW & CONTROL DIAGRAM
SYSTEM 05
CANISTER STORAGE BUILDING
OPERATING AREA

PROJECT TITLE
HANFORD WASTE VITRIFICATION PLANT

PROJECT	FLUOR CONTRACT NO.	WHC PO
B-595	8457	3229
SCALE	W.O. NO.	ORDER NO.
NONE		

DRAWING NUMBER H-2-129881 | SHEET 1 | OF 3 | REV. 02

AA488112 / 10
12-14-90 - 1629
SV

9111215

BL-05D-741
VARIABLE AIR VOLUME HOODS
EXHAUST FAN
DESIGN CAPACITY : 11,665 SCFM
EQUIP. CAPACITY : 14,000 SCFM
STATIC PRESSURE : 11.0 IN W.C.
HP : 40

BL-05D-742
VARIABLE AIR VOLUME HOODS
EXHAUST FAN
DESIGN CAPACITY : 11,665 SCFM
EQUIP. CAPACITY : 14,000 SCFM
STATIC PRESSURE : 11.0 IN W.C.
HP : 40

YCP-03A-020
H-2-129809-1
F3

START

HVAC ZONE II
ANALYTICAL LAB HOODS
EXHAUST FAN CONTROL PROGRAM
YCP 011

START PERMISSIVE

PIC-503
H-2-129816-2
F6

CF3 PDIC 868 PDAH PDAL

CF3 YIC 870 ZIL ZAL FAL

M/A S/S

CF3 YIC 869 ZIL ZAL FAL

M/A S/S

II 875A

II 871A

CF3 PDI 872 PDAL

ZIL 886

CF3 PDI 874 PDAL

ZIL 887

DCS

IAS

PDY 868A

YY 869A (F)

S

VENT

PDV 868A (F)

ZSL 868A (F)

PDIT 872

ZSL 886

FSL 873

FROM ANALYTICAL LAB ROOM 180
H-2-129823-1
A4

ID-05D-741A

FC

11665 SCFM

ID-05D-741B

PDIT 868

BD-05D-741

HS 869A S/S (1)

VV-05D-741

MT-05D-741

HC

IT 871 (F)

II 871B

BL-05D-741

DISCONNECT CONTROL

11665 SCFM

TO ZONE II EXHAUST PLENUM
H-2-129816-7
D8

ZONE II EXHAUST AIR FROM VARIABLE AIR VOLUME HOODS
H-2-129813-6
E2

11665 SCFM

IAS

PDY 868B

YY 870A (F)

S

VENT

PDV 868B (F)

ZSL 868B (F)

ID-05D-742A

PDIT 874

ZSL 887

FSL 875

FC

0 SCFM

BD-05D-742

ID-05D-742B

HS 870B S/S (1)

VV-05D-742

MT-05D-742

HC

IT 875 (F)

II 875B

BL-05D-742
(STANDBY)

DISCONNECT CONTROL

SAFETY PANEL
LP-120-003

SAFETY PANEL
LP-120-004

FOURTH FLOOR

GENERAL NOTES:

A. FOR GENERAL NOTES, REFER TO H-2-129823 SHT. NO. 1.

B. THREE DIGIT INSTRUMENT TAG NUMBERS ARE PREFIXED WITH 05D UNLESS A SIX DIGIT NUMBER IS SHOWN TO INDICATE ANOTHER SYSYTEM.

NOTES:

(1) THE LOCAL HANDSWITCH STATION WILL CONTAIN START AND STOP PUSHBUTTONS AND A SPRING RETURN KEYLOCK SWITCH. ALL WIRED DIRECTLY TO THE MC. THE START PUSHBUTTON WILL BE ENABLED ONLY WHEN THE KEY IS INSERTED AND TURNED. THE STOP PUSHBUTTON WILL STOP THE MOTOR AT ANY TIME.

SAFETY CLASS 1 AS NOTED

REV	DATE	REVISION DESCRIPTION	APPROVAL DETAILS
02	12/18/90	DELETED FO-050-071 DCN-0001	RF RT MM
			RF RT MM
01	11/8/90	ISSUED FOR FLUOR DANIEL	SA RF RT MM
		CONTROL PER CR HVVP-0446-2	JS FB DC RG
00	9/24/90	RELEASED FOR DETAILED DESIGN	SA RF RT MM
			JS FB DC RG

ENGINEERING RELEASE
REV. ____ DATE ____
ERD ____

SIGNATURE		DATE
NSC APPROVAL BY		
PROJ. MGR.	R.N.GIBBONS	9/21/90
QA ENGR.	D.P.CHAVLA	9/21/90
ENGINEERING MGR.	F.G.BROOKS	9/21/90
SYSTEMS MGR.	J.L.SMETS	9/19/90
TASK LEADER	M.G.MERCADO	9/19/90
E & C TASK LEADER	R.G.TAGNEY	9/19/90
DESIGNATOR	R.E.FLYE	9/19/90
CHECKED	S.ANVAR	9/19/90
DRAWN	M.VERGEL-DE-DIOS	9/18/90
CLASSIFICATION		
NONE	NOT REQ'D	

U.S.DEPARTMENT OF ENERGY
Richland Operations Office
DE - AC06-86RL10838

FLUOR DANIEL, INC.
ADVANCED TECHNOLOGY DIVISION

HVAC FLOW & CONTROL DIAGRAM
SYSTEM 05
VITRIFICATION BUILDING ZONE II
ANALYTICAL LABORATORY HOODS

PROJECT TITLE
HANFORD WASTE VITRIFICATION PLANT

PROJECT	FLUOR CONTRACT NO.	WBS NO.
B-595	8457	3228
SCALE	R.M. NO.	INDEX NO.
NONE		

DRAWING NUMBER: H-2-129823 | SHEET 5 | OF 6 | REV. 02

AA482352 / 06
12-14-90 - 0931
HC

9111216

BL-05D-751
CONSTANT AIR VOLUME HOODS
EXHAUST FAN
DESIGN CAPACITY : 15,670 SCFM
EQUIP. CAPACITY : 18,810 SCFM
STATIC PRESSURE : 8.0 IN W.C.
HP : 40

BL-05D-752
CONSTANT AIR VOLUME HOODS
EXHAUST FAN
DESIGN CAPACITY : 15,670 SCFM
EQUIP. CAPACITY : 18,810 SCFM
STATIC PRESSURE : 8.0 IN W.C.
HP : 40

YCP-05A-020
H-2-129809-1
F4

HVAC ZONE II
ANALYTICAL/ SAMPLE CELL SERVICE
EXHAUST FAN CONTROL PROGRAM
YCP 012

START PERMISSIVE

PIC-583
H-2-129816-2
F6

CF3 PDIC 877 PDAL PDAH

CF3 VIC 880 ZIL ZAL ZAL M/A S/S

CF3 VIC 879 ZIL ZAL ZAL M/A S/S

CF3 PDI 881 PDAL

ZIL 888

CF3 PDI 883 PDAL

CF3 IT 884A

ZIL 889

CF3 II 885A

DCS

IAS

PDY 877A

YY 879A (F)

VENT

PDV 877A (F)

ZSL 877A (F)

PDIT 881

ZSL 888

FSL 882

ID-05D-751A

FC

BD-05D-751

15670 SCFM

ID-05D-751B

VV-05D-751

MT-05D-751

HS 879 I S/S

MC

II 884B (F)

IT 884 (F)

DISCONNECT CONTROL

BL-05D-751

ZONE II EXHAUST AIR FROM CONSTANT AIR VOLUME HOODS
H-2-129813-6
E2

8400 SCFM

PDIT 877

FROM ANALYTICAL LAB ROOM 180
H-2-129823-2
B4

GAS SAMPLING HOOD EXHAUST
H-2-129813-7
E2

1350 SCFM

SAMPLE CELL SERVICE ROOM HOOD EXHAUST
H-2-129813-7
E2

5400 SCFM

FORMIC ACID TANK ROOM EXHAUST
H-2-129813-10
A2

520 SCFM

TO ZONE II EXHAUST PLENUM
H-2-129816-7
C8

15670 SCFM

IAS

PDY 877B

YY 880A (F)

VENT

PDV 877B (F)

ZSL 877B (F)

PDIT 883

ZSL 889

FSL 884

ID-05D-752A

FC

0 SCFM

BD-05D-752

ID-05D-752B

VV-05D-752

MT-05D-752

HS 880 I S/S

MC

II 885B (F)

IT 885 (F)

DISCONNECT CONTROL

BL-05D-752
(STANDBY)

SAFETY PANEL LP-120-003

SAFETY PANEL LP-120-004

FOURTH FLOOR

GENERAL NOTES:

A. FOR GENERAL NOTES, REFER TO H-2-129823 SHT. NO. 1.

B. THREE DIGIT INSTRUMENT TAG NUMBERS ARE PREFIXED WITH 05D UNLESS A SIX DIGIT NUMBER IS SHOWN TO INDICATE ANOTHER SYSTEM.

NOTES:

(1) THE LOCAL HANDSWITCH STATION WILL CONTAIN START AND STOP PUSHBUTTONS AND A SPRING RETURN KEYLOCK SWITCH. ALL WIRED DIRECTLY TO THE MC. THE START PUSHBUTTON WILL BE ENABLED ONLY WHEN THE KEY IS INSERTED AND TURNED. THE STOP PUSHBUTTON WILL STOP THE MOTOR AT ANY TIME.

SAFETY CLASS 1 AS NOTED

REV NO	DATE	REVISION DESCRIPTION	APPROVAL DETAILS
02	11/14/90	DELETED FD-050-012, FD-050-013 & FD-050-014 Q&N-0001	JS FB OC RG
01	11/28/90	ISSUED FOR FLUOR DANIEL	SA RF RT MH
		CONTROL PER CR HVVP-0446-2	JS FB OC RG
00	9/24/90	RELEASED FOR DETAILED DESIGN	SA RF RT MH
			JS FB OC RG

ENGINEERING RELEASE
REV. ___ DATE ___
ERO ___

SIGNATURE	DATE
VHC APPROVAL BY	
PROJ. MGR. R.N.GIBBONS	9/21/90
QA ENGR. D.P.CHAVLA	9/21/90
ENGINEERING MGR. F.G.BROOKS	9/21/90
SYSTEMS MGR. J.L.SMETS	9/19/90
TASK LEADER M.G.MERCADO	9/19/90
P.E.T. TASK LEADER R.G.TAGNEY	9/19/90
OPERATOR R.E.FLYE	9/19/90
CHECKED S.ANVAR	9/19/90
DRAWN M.VERGEL-DE-DIOS	9/18/90
CLASSIFICATION	BY
NONE	NOT REQ'D

U.S.DEPARTMENT OF ENERGY
Richland Operations Office
DE - AC06-86RL10838

FLUOR DANIEL, INC.
ADVANCED TECHNOLOGY DIVISION

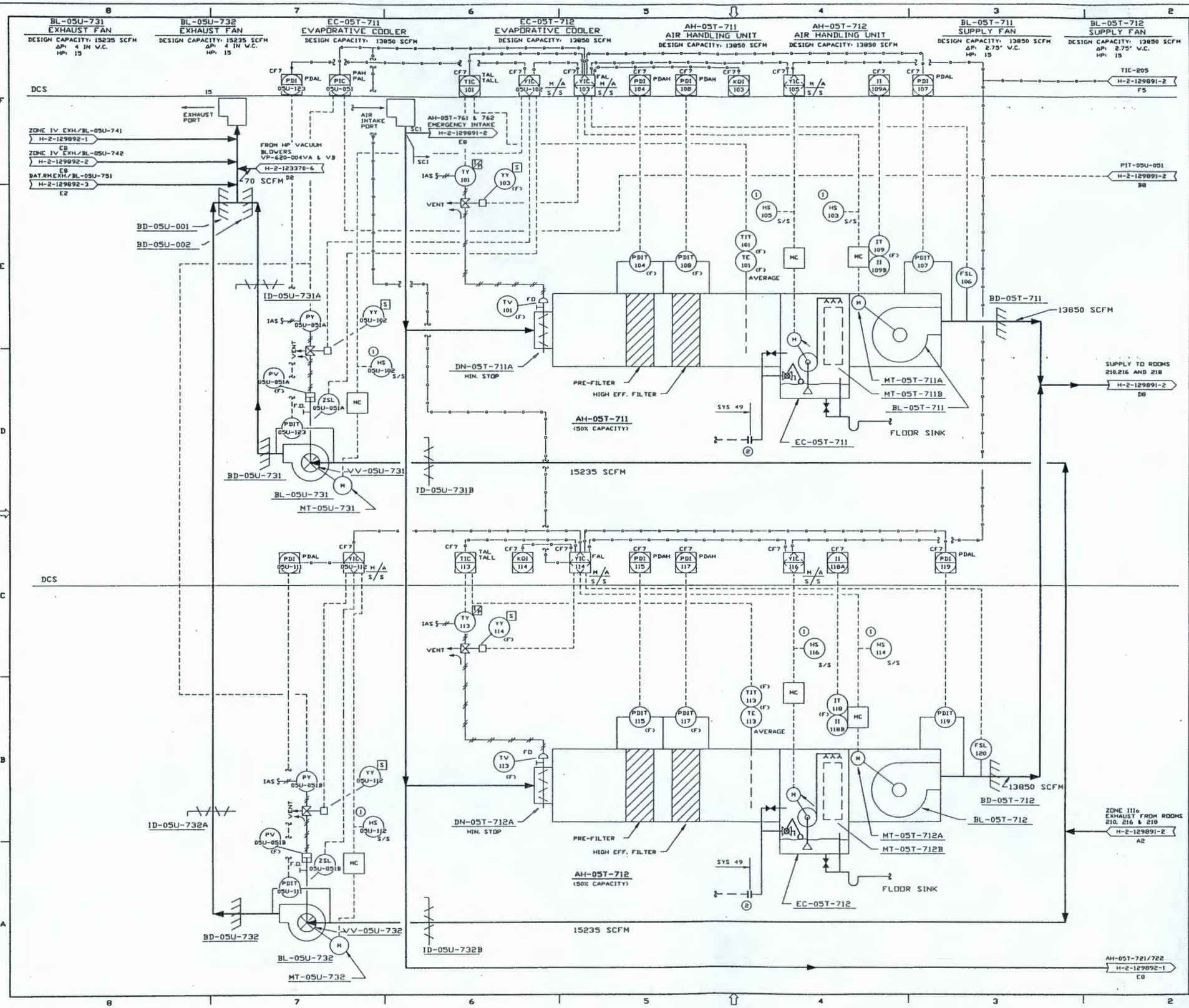
HVAC FLOW & CONTROL DIAGRAM
SYSTEM 05
VITRIFICATION BUILDING ZONE II
ANALYTICAL LABORATORY HOODS

PROJECT TITLE
HANFORD WASTE VITRIFICATION PLANT

PROJECT	FLUOR CONTRACT NO.	VHC NO.
B-595	0457	3228
SCALE	M&K NO.	SHEET NO.
NONE		

DRAWING NUMBER H-2-129823 | SHT | OF 6 | REV 02

AA482362 / 06
12-14-90 - 09:42
HC



GENERAL NOTES:

A. THREE DIGIT INSTRUMENT TAG NUMBERS ARE PREFIXED WITH 05T UNLESS A SIX DIGIT NUMBER IS SHOWN TO INDICATE ANOTHER SYSTEM.

B. FOR DEFINITION OF LOGIC CONTAINED IN DIAMOND SYMBOLS, ◇, AND HEX SYMBOLS, ⬡, SEE PROCESS CONTROL DESCRIPTION (PCD) SPECIFICATION B-595-C-17500-DS-05J.

C. REFER TO DRAWING H-2-123001 "LEGEND OF SYMBOLOGY FOR PROCESS FLOW AND PIPING AND INSTRUMENT DIAGRAMS" FOR AN EXPLANATION OF SYMBOLS AND ABBREVIATIONS.

D. FIRE DAMPER LOCATIONS AND REQUIREMENTS WILL BE VERIFIED IN DETAILED DESIGN.

NOTES:

(1) THE LOCAL HANDSWITCH STATION WILL CONTAIN START AND STOP PUSHBUTTONS AND A SPRING RETURN KEYLOCK SWITCH. ALL WIRED DIRECTLY TO THE MC. THE START PUSHBUTTON WILL BE ENABLED ONLY WHEN THE KEY IS INSERTED AND TURNED. THE STOP PUSHBUTTON WILL STOP THE MOTOR AT ANY TIME.

(2) FOR SERVICE WATER CONNECTION DETAIL, SEE DRAWING H-2-123358-1.

SAFETY CLASS 1 AS NOTED

REVNO	DATE	REVISION DESCRIPTION	APPROVAL INITIALS
02	12/7/90	REVISED SUPPLY & EXHAUST TO ROOM 210, 216 & 218 PER OCN-0001	SA RT MM
01	11/18/90	ISSUED FOR FLUOR DANIEL CONTROL PER CR HVVP-0446-2	ZM SA RT MM JS FB DC RG
00	9/24/90	RELEASED FOR DETAILED DESIGN	ZM SA RT MM JS FB DC RG

ENGINEERING RELEASE
REV. ____ DATE ____
ERO

SIGNATURE		DATE
QAC APPROVAL		
PROJ. MGR.	R.N.GIBBONS	9/21/90
QA ENGR.	D.P.CHAVLA	9/21/90
ENGINEERING MGR.	F.G.BROOKS	9/21/90
SYSTEMS MGR.	J.L.SMETS	9/18/90
TASK LEADER	M.G.MERCADO	9/18/90
P & C TASK LEADER	R.G.TAGNEY	9/17/90
DESIGNER	S.ATTAI	9/17/90
CHECKER	Z.MILATOVIC	9/17/90
DRAWN	J.SKORUPSKA	9/13/90
EQUIP. QUALIFICATION	NONE	NOT REQ'D

U.S. DEPARTMENT OF ENERGY
Richland Operations Office
DE - AC06-86RL10838

FLUOR DANIEL, INC.
ADVANCED TECHNOLOGY DIVISION

HVAC FLOW & CONTROL DIAGRAM
SYSTEM 05
FAN HOUSE
FAN ROOM

PROJECT TITLE: HANFORD WASTE VITRIFICATION PLANT
PROJECT: B-595 | FLUOR CONTRACT NO.: 8457 | WHC NO.: 3229
LEVEL: NONE | R.W.C. NO.: | SHEET NO.:
DRAWING NUMBER: H-2-129891 | SHEET: 1 | OF: 2 | REV.: 02

AA489112 / 11
12-14-90 - 14:32
HC

9111217

AH-05T-761
AIR HANDLING UNIT
DESIGN CAPACITY: 3200 SCFM

AH-05T-762
AIR HANDLING UNIT
DESIGN CAPACITY: 3200 SCFM

BL-05T-761
RETURN/ EXHAUST FAN
DESIGN CAPACITY: 3200 SCFM
ΔP: 2" W.C.
HP: 3

BL-05T-762
RETURN/ EXHAUST FAN
DESIGN CAPACITY: 3200 SCFM
ΔP: 2" W.C.
HP: 3

PF-05U-731
EXHAUST PLENUM
DESIGN CAPACITY: 15000 SCFM

PF-05U-732
EXHAUST PLENUM
DESIGN CAPACITY: 15000 SCFM

UH-05T-711
UNIT HEATER
DESIGN CAPACITY: 30 KW

PF-05T-701
HEPA FILTER PLENUM
DESIGN CAPACITY: 600 SCFM

UH-05T-712
UNIT HEATER
DESIGN CAPACITY: 30 KW

GENERAL NOTES:

A. FOR GENERAL NOTES REFER TO H-2-129891-1, SHEET NO. 1

NOTES:

(1) FACTORY BUILT-IN PLACE CHALLENGE AEROSOL INLET PORTS, DIFFUSERS, SAMPLE TEST PORTS, AND TEST SECTIONS UPSTREAM AND DOWNSTREAM SHALL BE PROVIDED FOR EACH HEPA FILTER.

SAFETY CLASS 1 AS NOTED

REV. NO.	DATE	REVISION DESCRIPTION	APPROVAL DETAILS
02	12/14/90	REVISED VENTILATION, ZONING & CFM CAPACITIES PER DCN-0001	SB SA RT MM
01	12/18/90	ISSUED FOR FLUOR DANIEL CONTROL PER CR HWVP-0446-2	ZM SA RT MM JS FB DC RG
00	9/24/90	RELEASED FOR DETAILED DESIGN	ZM SA RT MM JS FB DC RG

ENGINEERING RELEASE
REV ____ DATE ____
ERD

SIGNATURE	DATE
DOE APPROVAL	
PROJ. MGR. R.N.GIBBONS	9/21/90
SAF. MGR. O.P.CHAVLA	9/21/90
ENGINEERING MGR. F.G.BROOKS	9/21/90
SYSTEMS MGR. J.L.SMETS	9/18/90
TASK LEADER M.G.MERCADO	9/18/90
T.L.T. TASK LEADER R.G.TAGNEY	9/17/90
DESIGNATOR S.ATTAI	9/17/90
CHECKED Z.MILATOVIC	9/17/90
DRAWN J.SKORUPSKA	9/13/90

U.S. DEPARTMENT OF ENERGY
Richland Operations Office
DE - AC06-86RL10838

FLUOR DANIEL, INC.
ADVANCED TECHNOLOGY DIVISION

HVAC FLOW & CONTROL DIAGRAM
SYSTEM 05
FAN HOUSE
FAN ROOM

PROJECT TITLE
HANFORD WASTE VITRIFICATION PLANT

PROJECT	B-595	FLUOR CONTRACT NO.	8457
SCALE	NONE	BECHTEL NO.	
VPS NO.	3229	DRAWING NO.	

CLASSIFICATION	BY	DRAWING NUMBER	SHEET	OF	REV.
NONE	NOT REQ'D	H-2-129891	2	2	02

AA489122 / 11
12-14-90 - 1700
SV

9211216

BL-05U-741
RETURN/EXHAUST FAN
DESIGN CAPACITY: 12825 SCFM
ΔP: 0.75" W.C.
HP: 10

AH-05T-721
AIR HANDLING UNIT
DESIGN CAPACITY: 14780 SCFM

UH-05T-713
UNIT HEATER
DESIGN CAPACITY: 10 KW

CU-05T-721
CONDENSING UNIT
DESIGN CAPACITY: 487 MBH

CO-05T-721
COOLING COIL
DESIGN CAPACITY: 487 MBH

BL-05T-721
SUPPLY FAN
DESIGN CAPACITY: 14780 SCFM
ΔP: 2.5" W.C.
HP: 15

DCS

AIR INTAKE H-2-129891-1 A2

ZONE 1V EXH. H-2-129891-1 F8

BD-05U-003

DN-05U-721C

MIN STOP

DN-05U-721B

DN-05T-721A

PRE-FILTER

HIGH EFFICIENCY FILTER

AH-05T-721

FLOOR SINK

DXR

MT-05T-721

CO-05T-721

BD-05T-721

BL-05T-721

14780 SCFM

13980 SCFM

800 SCFM

AVERAGE

SUPPLY TO ROOMS 104, 105, 106, 107 & 111 H-2-129892-3 C8

CU-05T-721

SUPPLY TO ELECTRICAL ROOMS 108 & 110 H-2-129892-3 E8

SUPPLY TO HVAC EQUIPMENT ROOM 206 H-2-129892-3 D8

STORAGE ROOM 117 H-2-129892-3 C8

AH-05T-722 H-2-129892-2 C3

MT-05U-741

ID-05U-741A

ID-05U-741B

BL-05U-741

12825 SCFM

RETURN FROM ROOM 104, 107, 108, 110, 117 & 206 H-2-129892-3 A5

12825 SCFM

BL-05U-742 H-2-129892-2 B3

0 SCFM

UH-05T-713

HVAC ROOM 220

AH-05T-722 H-2-129892-2 E7

YIC-05T-014 H-2-129892-2 F2

GENERAL NOTES:

A. THREE DIGIT INSRUMENT TAG NUMBERS ARE PREFIXED WITH 05T UNLESS A SIX DIGIT NUMBER IS SHOWN TO INDICATE ANOTHER SYSTEM.

B. FOR DEFINITION OF LOGIC CONTAINED IN DIAMOND SYMBOLS, ◇ AND HEX SYMBOLS, ⬡ ,SEE PROCESS CONTROL DESCRIPTION (PCD) SPECIFICATION B-595-C-17500-DS-05J.

C. REFER TO DRAWING H-2-123001 "LEGEND OF SYMBOLOGY FOR PROCESS FLOW AND PIPING AND INSTRUMENT DIAGRAMS" FOR AN EXPLANATION OF SYMBOLS AND ABBREVIATIONS.

D. FIRE DAMPER LOCATIONS AND REQUIREMENTS WILL BE VERIFIED IN DETAILED DESIGN.

SAFETY CLASS 1 AS NOTED

REV NO.	DATE	REVISION DESCRIPTION	APPROVAL INITIALS
02	12/14/90	ADDED ROOM NO. 111 DCN-0001	ZH SA RT MH
			JS FB DC RG
01	11/28/90	ISSUED FOR FLUOR DANIEL	ZH SA RT MH
		CONTROL PER CR HWVP-0446-2	JS FB DC RG
00	9/24/90	RELEASED FOR DETAILED DESIGN	ZH SA RT MH
			JS FB DC RG

ENGINEERING RELEASE
REV. ____ DATE ____
ERD ____

		DATE
LEAD PIPE	R.N.GIBBONS	9/21/90
ENGR. ENGR.	D.P.CHAVLA	9/21/90
PROCESS ENGR.	F.G.BROOKS	9/21/90
SYSTEMS ENGR.	J.L.SMETS	9/18/90
TASK LEADER	H.G.MERCADO	9/18/90
F.T. TASK LEADER	R.G.TAGNEY	9/17/90
DESIGNER	S.ATTAI	9/17/90
CHECKED	Z.MILATOVIC	9/17/90
DRAWN	J.SKORUPSKA	9/13/90
CLASSIFICATION	NONE	NOT REQ'D

U.S. DEPARTMENT OF ENERGY
Richland Operations Office
DE - AC06-86RL10838

FLUOR DANIEL, INC.
ADVANCED TECHNOLOGY DIVISION

HVAC FLOW & CONTROL DIAGRAM
SYSTEM 05
FAN HOUSE
ELEC. HVAC EQUIP. ROOM, F.D.S. STORAGE, SAMPLE STORAGE & BATTERY ROOM

PROJECT TITLE: HANFORD WASTE VITRIFICATION PLANT

PROJECT	FLUOR CONTRACT NO.	VPE NO.
B-595	8457	3229
SCALE: NONE	W.O. NO.	DWG NO.
DRAWING NUMBER: H-2-129892	SHEET 1	OF 3	REV 02

AA489212 / 11
12-20-90 - 09:40
SV

9112120

UH-05T-715
UNIT HEATER
DESIGN CAPACITY: 5 KW

UH-05T-716
UNIT HEATER
DESIGN CAPACITY: 5 KW

EH-05T-002
ELECTRIC HEATER
DESIGN CAPACITY: 10 KW

EH-05T-003
ELECTRIC HEATER
DESIGN CAPACITY: 8 KW

EH-05T-006
ELECTRIC HEATER
DESIGN CAPACITY: 5 KW

EH-05T-004
ELECTRIC HEATER
DESIGN CAPACITY: 4 KW

EH-05T-005
ELECTRIC HEATER
DESIGN CAPACITY: 4 KW

BL-05U-751
EXHAUST FAN
DESIGN CAPACITY: 1155 SCFM
ΔP: 0.5" W.C.
HP: 0.75

CF7 TIC 202 TAH
CF7 TIC 203 TAH
CF7 TIC 206 TAH
CF7 TIC 204 TAH
CF7 TIC 205 TAH
CF7 HIS 206 S/S
CF7 PDI 207 PDAL

DCS

FROM SUPPLY AIR PLENUM OF AH-05T-721 OR 722
H-2-129892-1 C2
SC1 2880 SCFM

FROM SUPPLY AIR PLENUM OF AH-05T-721 OR 722
H-2-129892-1 B2
SC1 7300 SCFM

FD-05T-007

JC 202 (1) (F) RH EL EH-05T-002
JC 203 (1) (F) RH EL EH-05T-003
JC 206 (1) (F) RH EL EH-05T-006
JC 204 (1) (F) RH EL EH-05T-004
JC 205 (1) (F) RH EL EH-05T-005

FD-05T-008
FD-05T-009
FD-05T-010
FD-05T-011

FROM SUPPLY AIR PLENUM OF AHU-05T-721 OR 722
H-2-129892-1 B2
SC1 1500 SCFM

FD-05T-006

3300 SCFM
4000 SCFM
530 SCFM
1300 SCFM
1050 SCFM
1155 SCFM

T1T 202 TE 202
T1T 203 TE 203
T1T 206 TE 206
T1T 204 TE 204
T1T 205 TE 205

HS 206 (2)
MC
PDIT 207
M
BL-05U-751
MT-05U-751

BATTERY RM. EXH.
H-2-129891-1 F8
BD-05U-701

FROM SUPPLY AIR PLENUM OF AH-05T-721 OR 722
H-2-129892-1 A2
SC1 2300 SCFM
FP-05U-010

HEPA FILTER STD. 117

HVAC EQUIP. ROOM 206
UH-05T-715
UH-05T-716
TIC 208
TIC 209

ELECTRICAL ROOM 110

ELECTRICAL ROOM 108

CAEM ROOM "A" 105
CAEM ROOM "B" 107

FIELD OPERATING STATION-07 104

BATTERY ROOM 106
BATTERY ROOM 111

FD-05U-004
FD-05U-005
FD-05U-006
FD-05U-007
FD-05U-008
FD-05U-009

BL-05U-741/742
H-2-129892-1 B3
SC1 12825 SCFM

GENERAL NOTES:

A. FOR GENERAL NOTES, REFER TO H-2-129892 SHT. NO. 1.

NOTES:

(1) THE MULTI-STEP ELECTRIC HEATER POWER CONTROLLER SYSTEM INCLUDES A MULTI-STAGE STEP CONTROLLER, LOW AIR FLOW AND HIGH HEATER TEMPERATURE CUTOUTS.

(2) THE LOCAL HANDSWITCH STATION WILL CONTAIN START AND STOP PUSHBUTTONS AND A SPRING RETURN KEY LOCK SWITCH, ALL WIRED DIRECTLY TO THE MC. THE START PUSHBUTTON WILL BE ENABLE ONLY WHEN THE KEY IS INSERTED AND TURNED. THE STOP PUSHBUTTON WILL STOP THE MOTOR AT ANY TIME.

SAFETY CLASS 1 AS NOTED

REVNO	DATE	REVISION DESCRIPTION	APPROVAL DETAILS
02	12/14/90	ADDED BATTERY ROOM NO. 111 DCN-0001	SA TC RT MH
01	11/28/90	ISSUED FOR FLUOR DANIEL	SA TC RT MH
00	7/24/90	CONTROL PER CR HWVP-0446-2	JS FB DC RG
		RELEASED FOR DETAILED DESIGN	ZM SA RT MH
			JS FB DC RG

ENGINEERING RELEASE
REV. ____ DATE ____
ERD ____

SIGNATURE		DATE
LEAD APPROVAL BY		
PROJ. MGR.	R.N.GIBBONS	9/21/90
DES. ENGR.	D.P.CHAVLA	9/21/90
ENGINEERING MGR.	F.G.BROOKS	9/21/90
SYSTEMS MGR.	J.L.SMETS	9/18/90
TASK LEADER	M.G.MERCADO	9/18/90
P.E.T. TASK LEADER	R.G.TAGNEY	9/17/90
DESIGNER	S.ATTAI	9/17/90
CHECKED	Z.MILATOVIC	9/17/90
APPROVED	J.SKORUPSKA	9/13/90
CLASSIFICATION	BY	
NONE	NOT REQ'D	

U.S.DEPARTMENT OF ENERGY
Richland Operations Office
DE - AC06-86RL10838

FLUOR DANIEL, INC.
ADVANCED TECHNOLOGY DIVISION

HVAC FLOW & CONTROL DIAGRAM
SYSTEM 05
FAN HOUSE
ELEC./HVAC EQUIP. ROOM,
F.D.S. STORAGE, SAMPLE STORAGE
& BATTERY ROOM

PROJECT TITLE
HANFORD WASTE VITRIFICATION PLANT

PROJECT	FLUOR CONTRACT NO.	WBS NO.
B-595	8457	3229
SCALE: NONE	B.N. NO.	INDEX NO.

DRAWING NUMBER: H-2-129892
SHEET 3 | BY 3 | REV. 02

AA489232 / 11
12-20-90 - 09:52
HC

9112211

AH-05X-713
AIR HANDLING UNIT
DESIGN CAPACITY: 4300 SCFM

BL-05X-713
SUPPLY FAN
DESIGN CAPACITY: 4300 SCFM
ΔP: 2.5" W.C.
HP: 5

AH-05X-714
AIR HANDLING UNIT
DESIGN CAPACITY: 4300 SCFM

BL-05X-714
SUPPLY FAN
DESIGN CAPACITY: 4300 SCFM
ΔP: 2.5" W.C.
HP: 5

GENERAL NOTES:

A. FOR GENERAL NOTES, REFER TO H-2-129901 SHT. NO. 1.

TIC-003A & 003B
H-2-129901-1
F2

CFB TY 003 (P/N)
CFB TI 003C TAL
CFB TI 003D TAL
CFB TI 003E TAL

DCS

TAL 101 LP-120-003

H-2-129901-1
A2
11050 SCFM

FDS 88
120

LEAKAGE
TRANSFER GRILLE

H-2-129901-1
E2
28000 SCFM

950 SCFM
FD-05X-001

9050 SCFM

18000 SCFM

FD-05X-002
FD-05X-003
FD-05X-006
FD-05X-005
FD-05X-004

TIT 003C
TE 003C
0 SCFM

NORMAL SWITCHGEAR ROOM
110

H-2-129901-1
B2

2000 SCFM

CABLE ROOM 002
CABLE ROOM 006
TRANSFER GRILLE W/ FD
CABLE ROOM 004
FD-05Y-008
FD-05Y-009

FD-05X-007
FD-05X-008
1000 SCFM
1000 SCFM
2000 CFM

FD-05Y-001
600 SCFM
AH-05X-715
H-2-129902
E8

LP-120-003
LOP
YY 103
TC 103
HS 103 S/S
MC
YL 103

TIT 003D
TE 003D
TSL 101
STANDBY SWITCHGEAR ROOM
102

FD-05X-010
8000 SCFM

4300 SCFM (EMERG.)
0 SCFM (NORMAL)

PDI 102
MT-05X-713
PDI 104 (F)
SC1
DAX
AI-05X-713

7400 SCFM
GENERATOR ROOM
H-2-129903
D8

CONTROLS / DIGITAL EQUIPMENT
300 SCFM

FD-05Y-002
BD-05Y-715
FD-05X-011
BL-05X-713
PRE-FILTER

AH-05X-713
(EMERGENCY OPERATION)

LP-120-004
TAL 105

FD-05Y-004
600 SCFM
AH-05X-716
H-2-129902
B8

LP-120-004
LOP
YY 111
TC 111
HS 111 S/S
MC
YL 111

TIT 003C
TE 003C
TSL 105
STANDBY SWITCHGEAR ROOM
104

FD-05X-009
8000 SCFM

4300 SCFM (EMERG.)
0 SCFM (NORMAL)

PDI 110
MT-05X-714
PDI 112 (F)
SC1
DAX
AI-05X-714

7400 SCFM
GENERATOR ROOM
H-2-129903
A8

CONTROLS / DIGITAL EQUIPMENT
300 SCFM

FD-05Y-010
BD-06Y-716
FD-05X-012
BL-05X-714
PRE-FILTER

AH-05X-714
(EMERGENCY OPERATION)

SAFETY CLASS 1 AS NOTED

REV NO.	DATE	REVISION DESCRIPTION	APPROVAL INITIALS
02	12/19/90	ADDED VENTILATION TO CONTROLS/DIGITAL EQUIPMENT ROOMS DCN-0001	ZM SA RT MM
01	11/13/90	ISSUED FOR FLUOR DANIEL	ZM SA RT MM
00	9/24/90	CONTROL PER CR HWVP-0446-2	JS FB DC RG
		RELEASED FOR DETAILED DESIGN	ZM SA RT MM
			JS FB DC RG

ENGINEERING RELEASE
REV. ___ DATE ___
ERD ___

SIGNATURE	DATE
MNC APPROVAL BY	
PROJ MGR R.N.GIBBONS	9/21/90
QA ENGR D.P.CHAVLA	9/21/90
ENGINEERING MGR F.G.BROOKS	9/21/90
SYSTEMS MGR J.L.SMETS	9/18/90
TASK LEADER M.G.MERCADO	9/18/90
T T TASK LEADER R.G.TAGNEY	9/17/90
DESIGNER S.ATTAI	9/17/90
CHECKED Z.MILATOVIC	9/17/90
DRAWN J.SKORUPSKA	9/14/90

CLASSIFICATION: NONE
BY: NOT REQ'D

U.S.DEPARTMENT OF ENERGY
Richland Operations Office
DE - AC06-86RL10838

FLUOR DANIEL, INC.
ADVANCED TECHNOLOGY DIVISION

HVAC FLOW & CONTROL DIAGRAM
SYSTEM 05
SWITCHGEAR/GENERATOR BLDG.
NORMAL AND STANDBY
SWITCHGEAR ROOM SUPPLY

PROJECT TITLE: HANFORD WASTE VITRIFICATION PLANT

PROJECT	FLUOR CONTRACT NO	WBS NO
B-595	6457	3229
SCALE: NONE	BLDG NO	INDEX NO

DRAWING NUMBER: H-2-129901
SHT 2 OF 2 REV. 02

AA490121 / 12
12-20-90 - 0900
MC