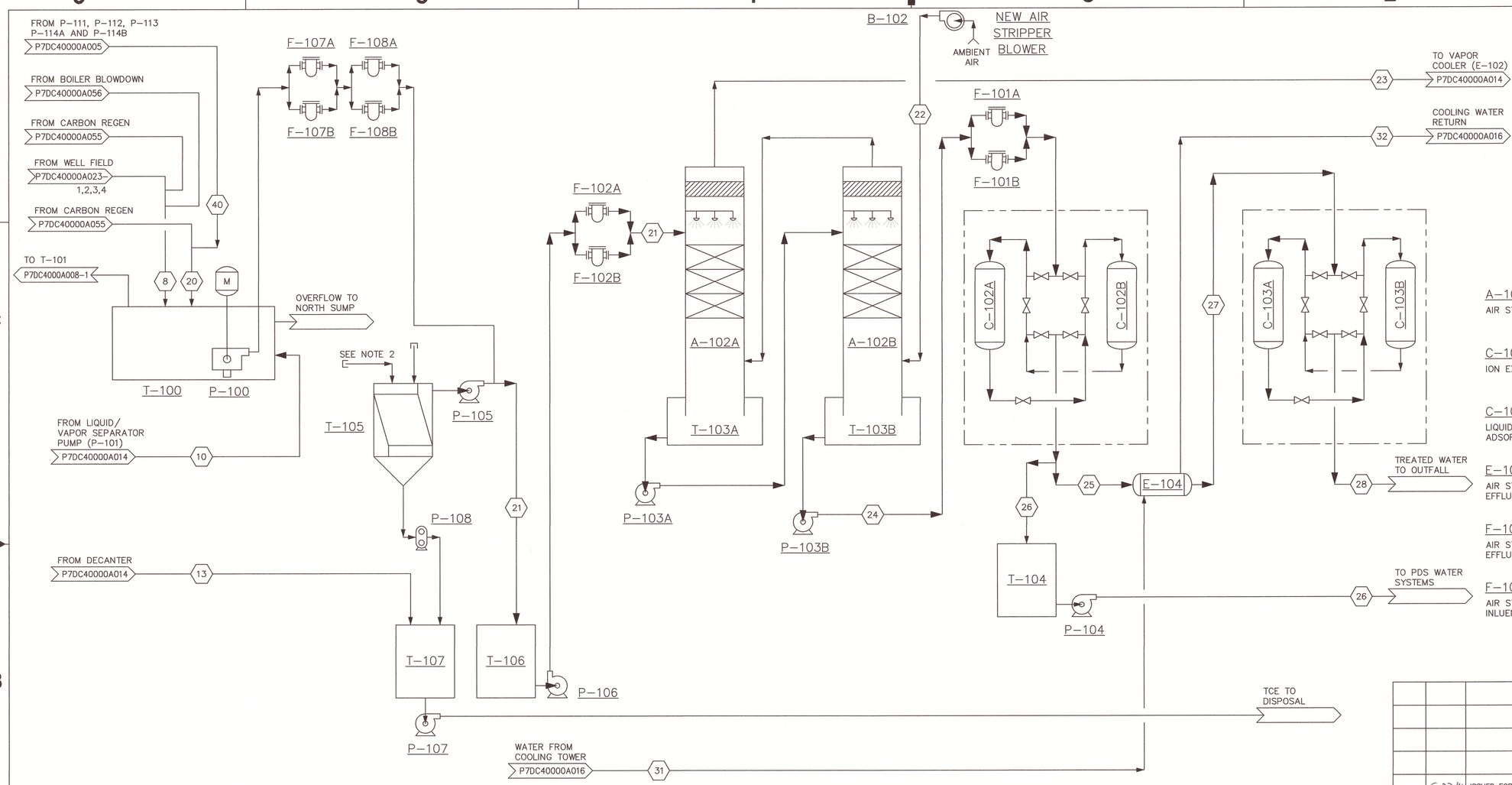

NOTES:

1. THE MAXIMUM FLOW RATE FROM THE REGENERATIVE CARBON ABSORPTION SYSTEM TO TANK T-107 SHALL BE LESS THAN 1,597 LB/HR (2.18 GPM VOC).
2. T-105A AND T-105B ARE CURRENTLY BYPASSED.

A-102A/B AIR STRIPPER	F-107A/B T-100 EFFLUENT FILTERS	P-105 SEPARATOR WATER PUMP	T-104 HOT GROUNDWATER TANK
C-102A/B ION EXCHANGE	F-108A/B T-100 EFFLUENT FILTERS	P-106 AIR STRIPPER FEED PUMP	T-105 DNAPL SEPARATOR
C-103A/B LIQUID CARBON ADSORBERS	P-100 FEED SURGE PUMP	P-107 TCE TRANSFER PUMP	T-106 AIR STRIPPER FEED TANK
E-104 AIR STRIPPER EFFLUENT COOLER	P-103A AIR STRIPPER TRANSFER PUMP	P-108 LIQUID TCE PUMP	T-107 LIQUID TCE STORAGE TANK
F-101A/B AIR STRIPPER EFFLUENT FILTERS	P-103B AIR STRIPPER EFFLUENT PUMP	T-100 FEED SURGE TANK	B-102 AIR STRIPPER BLOWER
F-102A/B AIR STRIPPER INLUENT FILTERS	P-104 WATER INJECTION PUMP	T-103A/B AIR STRIPPER EFFLUENT TANK	

Stream No.	8	10	13	20	21	22	23	24	25	26	27	28	31	32	40
Stream Description	Aqueous from Decanter	Condensate from Cooler/Chiller in T-108	TCE from Decanter	Groundwater from MPE Wells	Air Stripper Feed	Air to Stripper	Air from Stripper A-102A/B	Air Stripped Groundwater	Groundwater to E-104	Hot Groundwater to Reinjection	Groundwater to C-103A/B	Groundwater to Discharge	Cooling Water to E-104	E-104 Cooling Water Return	Cooling Tower Overflow
Dry Air (lbs/hour)	-	-	-	-	-	1,350	1,350	-	-	-	-	-	-	-	-
H2O (lbs/hour)	1,200	7,093	-	15,294	24,185	11.21	195	23,979	11,748	12,231	11,748	11,748	128,639	128,639	-
TCE (lbs/hour)	1.32	-	228	16.86	16.86	-	16.86	-	-	-	-	-	-	-	-
Total Output (lb/hr)	1,201	7,093	228	15,311	24,202	1,361	1,562	23,979	11,748	12,231	11,748	11,748	128,639	128,639	-
gas flow (scfmw)	-	-	-	-	-	304	370	-	-	-	-	-	-	-	-
Liquid flow (GPM)	2.4	14.19	0.3	30.6	48.39	-	-	49.01	24.01	25.0	23.56	23.56	258	258	-
Total VOCs (ppmv)	-	-	-	-	-	-	2,229	-	-	-	-	-	-	-	-
Temperature (oF)	50	50	50	203	194	70	140	157	157	157	100	100	83	100	-
Pressure (psia)	14.9	14.7	14.9	14.7	14.7	16	14.9	14.7	14.7	14.7	14.7	14.7	50	15	-

REV.	DATE	DESCRIPTION	DRAWN BY	DRAFT CHK	PROJ ENGR	LEAD ENGR	CONF CTRL/ NUCL SFTY	FAC MGR	E&TS MGR
8	5-22-14	ISSUED FOR AS-BUILT, PHASE 2A	KTW	NJB	DJH	JTP	SJD	JRW	PAC
7	6-26-13	PHASE IIA DESIGN-ISSUED FOR AS-BUILT	KTW	NJB	DJH	JTP	SJD	JRW	PAC
6	6/7/2013	ADDED FLOW TABLE FOR MASS BALANCE CALCS.	TCW	TJH	TJM	TS	---	---	---
5	10/26/12	PHASE IIA DESIGN-CERTIFIED FOR CONSTRUCTION	NJB	TJH	TJM	BCK	SJD	JRW	RES

DRAWING REVISIONS

U.S. DEPARTMENT OF ENERGY
PADUCAH, PORTSMOUTH PROJECT OPERATIONS,
PADUCAH GASEOUS DIFFUSION PLANT

LPE

LATA Environmental Services of Kentucky, LLC managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC30-10CC40020 Paducah, Kentucky

DOE CONTRACT NO. DE-AC30-10CC40020

PROJECT NAME:
C-400 REMEDIATION DESIGN

TITLE:
GROUNDWATER TREATMENT SYSTEMS
PROCESS FLOW DIAGRAM

EDCS CAD FILENAME	BUILDING	PLANT	CLASS
P7DC40000A015 REV8.DWG	C-400	PDGP	U

DATE:	SCALE:	DRAWING NUMBER	REV
PROFESSIONAL SEAL	N/A	P7DC40000A015	8