

MASS FLOW BALANCE

STREAM	101	103	104	121	122	201
Component	Dosing Oil*	Dosing Oil	Dosing Oil	Waste Gas	Water	Dry Oil
Design Flow (gph)	1,215	1,284	1,320	-	25	1,207
Design Flow (lb/hr)	9,328	9,328	9,328	Trace	187	9,141
Max Flow (gph)	1,300	1,374	1,412	-	27	1,305
Max Flow (lb/hr)	9,981	9,981	9,981	-	200	9,781
Specific Gravity	0.92	0.87	0.85	-	1.00	0.90
Temperature, °C	20	98	135	-	56	40
Temperature, °F	68	209	275	-	133	104
Pressure, psig	-	-	-	-	-	-

STREAM	223	226	227	229	230
Component	Catalyst Mix**	Methanol	Methanol	Catalyst Mix**	Catalyst Mix**
Design Flow (gph)	23	135	28	19	5.0
Design Flow (lb/hr)	192	892	188	154	38
Max Flow (gph)	25	145	30	20	5.0
Max Flow (lb/hr)	206	954	29	165	41
Specific Gravity	0.99	0.79	0.80	0.99	0.99
Temperature, °C	20	20	16	20	20
Temperature, °F	68	68	60	68	68
Pressure, psig	-	-	-	-	-

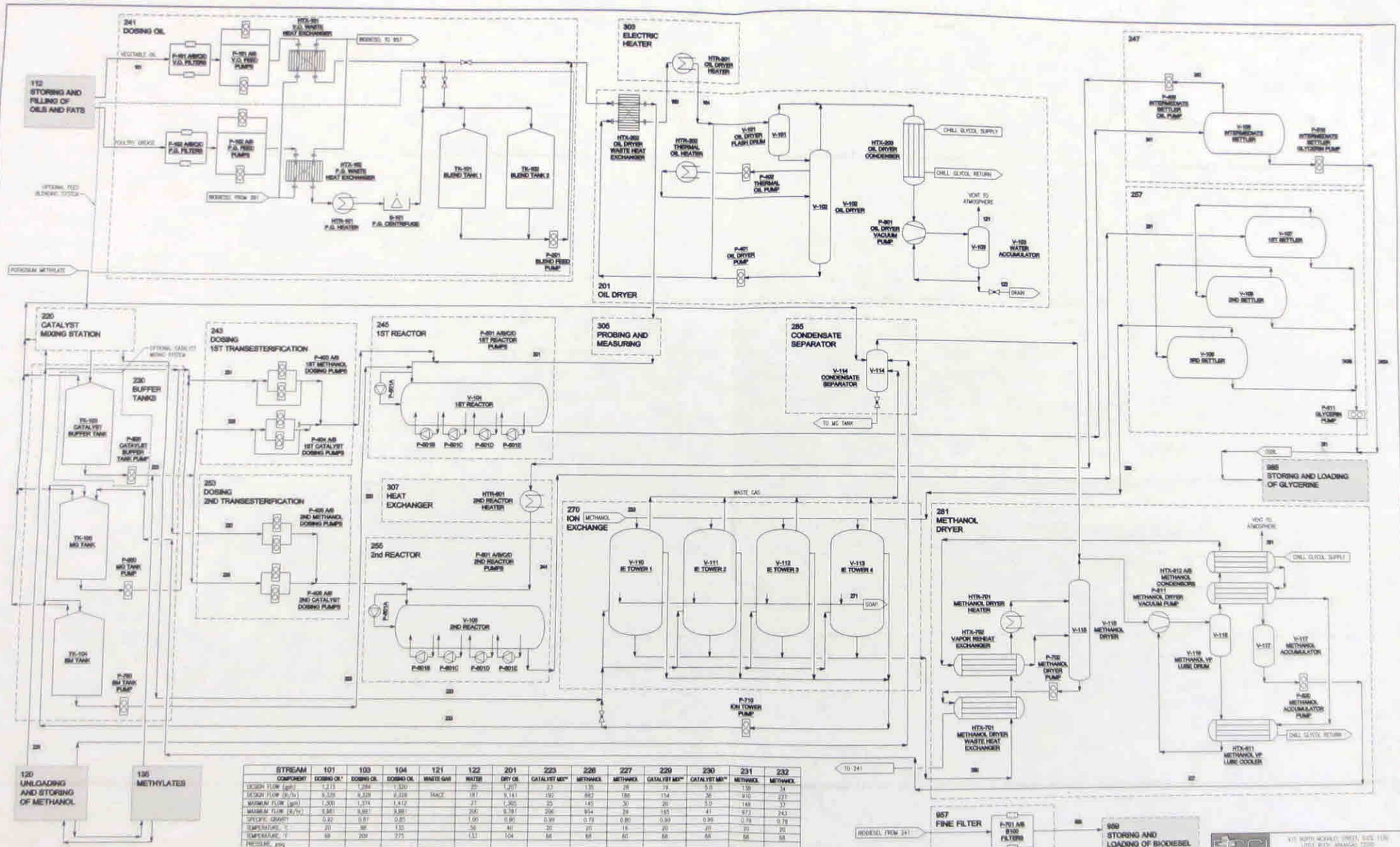
STREAM	231	232	233	241	243A	243B
Component	Methanol	Methanol	MB	Crude Biodiesel	Glycerin	Glycerin
Design Flow (gph)	138	34	8	1,545	79	14
Design Flow (lb/hr)	910	227	57	10,262	816	144
Max Flow (gph)	148	37	8	1,653	84	15
Max Flow (lb/hr)	973	243	62	10,981	873	154
Specific Gravity	0.79	0.79	0.88	0.80	1.24	1.24
Temperature, °C	20	20	20	60	35	35
Temperature, °F	68	68	68	140	95	95
Pressure, psig	-	-	-	-	-	-

STREAM	242	244	251	260	261	271
Component	Crude Biodiesel	Crude Biodiesel	Crude Biodiesel	Biodiesel	Glycerin	Soap
Design Flow (gph)	1,311	1,397	1,463	1,315	91	-
Design Flow (lb/hr)	9,447	9,447	9,713	9,569	960	168
Max Flow (gph)	1,403	1,495	1,565	1,407	98	-
Max Flow (lb/hr)	10,108	10,108	10,393	10,238	1,027	-
Specific Gravity	0.86	0.81	0.80	0.87	1.26	-
Temperature, °C	35	56	60	30	30	-
Temperature, °F	95	132	140	86	86	-
Pressure, psig	-	-	-	-	-	-

STREAM	280	281	950
Component	Biodiesel	Vapors	Biodiesel
Design Flow (gph)	1,292	-	1,269
Design Flow (lb/hr)	9,401	Trace	9,213
Max Flow (gph)	1,383	-	1,358
Max Flow (lb/hr)	10,059	-	9,857
Specific Gravity	0.87	-	0.87
Temperature, °C	30	-	31
Temperature, °F	86	-	88
Pressure, psig	-	-	-

*Basis: RBD Soy Oil

**32% Potassium Methylate in Methanol



STREAM	101	103	104	121	122	201	223	226	227	229	231	232
COMPONENT	DOSENG OIL	DOSENG OIL	DOSENG OIL	WASTE GAS	WATER	DRY OIL	CATALYST MIX*	METHANOL	METHANOL	CATALYST MIX*	CATALYST MIX*	METHANOL
DESIGN FLOW (gph)	1,215	1,284	1,320	25	1,267	27	135	28	75	5.0	130	34
WATER FLOW (gph)	0.00	0.00	0.00	TRAC	191	9,141	192	882	188	154	26	271
WASTAGE FLOW (gph)	1,200	1,274	1,412	27	1,265	25	145	30	5.0	148	37	37
WASTAGE FLOW (L/HR)	0.861	0.887	1,008	26	0.781	266	994	22	145	41	873	243
SPECIFIC GRAVITY	0.92	0.87	0.85	1.00	0.99	0.99	0.79	0.80	0.89	0.85	0.78	0.78
TEMPERATURE, °C	20	88	125	58	88	26	26	18	20	26	20	20
TEMPERATURE, °F	68	209	275	133	104	88	88	64	68	68	68	68
PRESSURE, PSIG												

STREAM	243	241	243A	243B	242	244	251	260	271	280	281	282
COMPONENT	AB	CRUDE BIODIESEL	GLYCEROL	GLYCEROL	CRUDE BIODIESEL	BIODIESEL	BIODIESEL	GLYCEROL	SOAP	BIODIESEL	VAPOR	BIODIESEL
DESIGN FLOW (gph)	9	1,543	79	14	1,311	1,397	1,493	1,315	97	1,292	1,292	1,288
DESIGN FLOW (L/HR)	0.37	10,092	818	144	9,447	9,447	8,713	8,749	365	108	9,401	9,271
WASTAGE FLOW (gph)	8	1,453	84	11	1,463	1,495	1,565	1,467	96	1,305	1,305	1,308
WASTAGE FLOW (L/HR)	0.33	10,983	872	134	10,108	10,108	10,383	10,258	1,027	1,029	9,863	9,863
SPECIFIC GRAVITY	0.88	0.86	1.24	1.24	0.86	0.81	0.80	0.87	1.24	0.87	0.87	0.83
TEMPERATURE, °C	20	80	35	35	35	35	35	30	30	30	30	31
TEMPERATURE, °F	68	176	95	95	95	95	95	86	86	86	86	88
PRESSURE, PSIG												

CF-10 PROCESS FLOW DIAGRAM
LITTLE ROCK, ARKANSAS

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SCALE: 1/8" = 1'-0"

DATE: 10/01/2007

PROJECT NO: 480-0000

DRAWING NO: 480-10-001

REV: 1

REV	DESCRIPTION	DATE	BY	CHECKED
1	RELEASED FOR INFORMATION ONLY	10/01/07		
2	RELEASED FOR INFORMATION ONLY	10/01/2007		