

M-E-C DRYER PERFORMANCE

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GEORGE HASENBERGER, BANCROFT, ON  
CASE: 1 - 7 MTPH  
PRODUCT: SAWDUST

06-19-2006  
MFH1

	A	B	C	D	E
IN. MOIST (% WET)	55.0	52.5	50.0	47.5	45.0
OUT. MOIST (% WET)	12.0	12.0	12.0	12.0	12.0
IN. TEMP (F)	685	620	562	510	463
OUT. TEMP (F)	250	240	230	220	210
PRODUCT RATE (OD PPH)	16,000	16,000	16,000	16,000	16,000
IN. PROD. RATE (PPH)	35,556	33,684	32,000	30,476	29,091
EX. PROD. RATE (PPH)	18,182	18,182	18,182	18,182	18,182
EVAP. RATE (PPH)	17,374	15,502	13,818	12,294	10,909
BURN. OUT. (DRY PPH)	67,613	62,103	57,032	52,333	47,949
FLUEGAS (DRY PPH)	0	0	0	0	0
DRYER IN. (DRY PPH)	190,646	197,807	204,700	211,384	217,905
FUEL RATE (OD PPH)	4,858	4,462	4,098	3,760	3,445
BURNER (MMBTU/HR)	41.29	37.93	34.83	31.96	29.28
IN. SENS. (MMBTU/HR)	31.70	29.11	26.74	24.53	22.48
IN. GAS VOL. (ACFM)	104,322	101,426	98,782	96,359	94,132
BURN. OUT VOL (ACFM)	71,515	65,687	60,323	55,352	50,716
FLUEGAS VOL. (ACFM)	0	0	0	0	0
QUENCH VOLUME (ACFM)	28,907	31,884	34,695	37,369	39,931
IN. HUMID (LB/LB)	.0469	.0427	.0390	.0358	.0329
EX. HUMID (LB/LB)	.1348	.1183	.1042	.0920	.0813
BTU/LB EVAP	1,824	1,878	1,935	1,996	2,061
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DRYER SIZE	1360-T	PROD. IN. TEMP. (F)		50	
ELEVATION (FT AMSL)	1,000	PROD. OUT. TEMP (F)		150	
STAT. PRESS. (IN WC)	8.0	BURN. OUT. TEMP. (F)		1,553	
DRY. HEAT LOSS FACT.	1.05	FLUEGAS TEMP. (F)		0	
FAN VOLUME (ACFM)	75,000	QUENCH TEMP. (F)		60	
FR. SEAL LEAK (ACFM)	750	AMBIENT TEMP. (F)		60	
R. SEAL LEAK (ACFM)	400	BURNER IN. TEMP (F)		60	
FLUEGAS MAX (ACFM)	0	MAX INLET TEMP. (F)		1,000	
FUEL TYPE	7	AMB. HUMID. (LB/LB)		.0100	
FUEL MOISTURE (WB)	0.500	QUENCH HUMID (LB/LB)		.0100	
FUEL ASH (DB)	0.025	F.G. HUMID. (LB/LB)		.0000	
GCV (BTU/LB)	8,500	B. OUT HUMID (LB/LB)		.1141	
CARBON	.4900	B. IN. HUMID (LB/LB)		.0100	
HYDROGEN	.0600	FLUEGAS MAX (LB/HR)		0	
NITROGEN	.0000	IN. STEAM (LB/HR)		0	
SULFUR	.0000	BURN. MAX (MMBTU/HR)		50.000	
EXCESS AIR (LB/LB)	1.500				
AIR/FUEL (LB/LB)	14.17				
BURN HEAT LOSS FACT.	1.05				

M-E-C DRYER PERFORMANCE

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GEORGE HASENBERGER, BANCROFT, ON  
CASE: 2 - 15 MTPH  
PRODUCT: SAWDUST

06-19-2006  
MFH1

	A	B	C	D	E
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IN. MOIST (% WET)	55.0	52.5	50.0	47.5	45.0
OUT. MOIST (% WET)	12.0	12.0	12.0	12.0	12.0
IN. TEMP (F)	1,000	1,000	890	792	705
OUT. TEMP (F)	250	240	230	220	210
PRODUCT RATE (OD PPH)	27,774	31,863	32,000	32,000	32,000
IN. PROD. RATE (PPH)	61,721	67,081	64,000	60,952	58,182
EX. PROD. RATE (PPH)	31,562	36,208	36,364	36,364	36,364
EVAP. RATE (PPH)	30,159	30,872	27,636	24,589	21,818
BURN. OUT. (DRY PPH)	101,918	103,184	94,288	85,794	77,957
FLUEGAS (DRY PPH)	0	0	0	0	0
DRYER IN. (DRY PPH)	180,456	182,698	192,868	202,785	212,276
FUEL RATE (OD PPH)	7,323	7,414	6,774	6,164	5,601
BURNER (MMBTU/HR)	62.24	63.01	57.58	52.39	47.61
IN. SENS. (MMBTU/HR)	47.78	48.37	44.20	40.22	36.55
IN. GAS VOL. (ACFM)	129,982	131,597	127,032	122,567	118,407
BURN. OUT VOL (ACFM)	107,798	109,138	99,728	90,744	82,455
FLUEGAS VOL. (ACFM)	0	0	0	0	0
QUENCH VOLUME (ACFM)	18,453	18,682	23,161	27,487	31,558
IN. HUMID (LB/LB)	.0688	.0688	.0609	.0541	.0482
EX. HUMID (LB/LB)	.2296	.2315	.1991	.1712	.1476
BTU/LB EVAP	1,584	1,567	1,599	1,636	1,675
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DRYER SIZE	1360-T	PROD. IN. TEMP. (F)		50	
ELEVATION (FT AMSL)	1,000	PROD. OUT. TEMP (F)		150	
STAT. PRESS. (IN WC)	8.0	BURN. OUT. TEMP. (F)		1,553	
DRY. HEAT LOSS FACT.	1.05	FLUEGAS TEMP. (F)		0	
FAN VOLUME (ACFM)	80,000	QUENCH TEMP. (F)		60	
FR. SEAL LEAK (ACFM)	800	AMBIENT TEMP. (F)		60	
R. SEAL LEAK (ACFM)	400	BURNER IN. TEMP (F)		60	
FLUEGAS MAX (ACFM)	0	MAX INLET TEMP. (F)		1,000	
FUEL TYPE	7	AMB. HUMID. (LB/LB)		.0100	
FUEL MOISTURE (WB)	0.500	QUENCH HUMID (LB/LB)		.0100	
FUEL ASH (DB)	0.025	F.G. HUMID. (LB/LB)		.0000	
GCV (BTU/LB)	8,500	B. OUT HUMID (LB/LB)		.1141	
CARBON	.4900	B. IN. HUMID (LB/LB)		.0100	
HYDROGEN	.0600	FLUEGAS MAX (LB/HR)		0	
NITROGEN	.0000	IN. STEAM (LB/HR)		0	
SULFUR	.0000	BURN. MAX (MMBTU/HR)		50.000	
EXCESS AIR (LB/LB)	1.500				
AIR/FUEL (LB/LB)	14.17				
BURN HEAT LOSS FACT.	1.05				