

## Chapter ATCP 50 APPENDIX E

### AGRICULTURAL ENGINEERING CERTIFICATION APPENDIX E

EMPLOYEE: SIGNATURE: CONCURRED BY: DELEGATED BY: CERTIFIED BY:	OFFICE: TITLE: TITLE: TITLE: TITLE:	Original Revised Revised

STD. CODE	PRACTICE	SUB-PRACTICE	CONTROLLING FACTORS	UNITS	JOB CLASS					MAX APPROVAL LIMIT and CERTIFICATION RATING		
					I	II	III	IV	V	PLNG	DESIGN	CONST
560	ACCESS ROAD	CULVERT LIVESTOCK AND EQUIPMENT STREAM CROSSING	GRADE DRAINAGE AREA VELOCITY	% ACRES FPS	10 10 4	ALL 20 6	40 40 8	160 160 10	ALL			
575	ANIMAL TRAILS AND WALKWAYS		GRADE NUMBER	% EACH	ALL	ALL						
360	CLOSURE OF WASTE IMPOUNDMENT		DRAINAGE AREA WATER SOURCE	ACRES —	10 —	20 POND	40 POND	160 STREAM	ALL			
422	DRY HYDRANT		LIFT (STATIC HEAD) NOMINAL DIAMETER	FEET INCHES	5 4	10 4	15 6	ALL				
396	FISH PASSAGE	DAM REMOVAL		—	ALL							
410	GRADE STABILIZATION STRUCTURE	EARTHEN EMBANKMENTS (HAZARD CLASS "B" ONLY)	DRAINAGE AREA EFFECTIVE HEIGHT (ft) STORAGE (ft) CONDUIT (SINGLE) (STOR. VOL.)(HEE, HIC) NET DROP	ACRES FEET AC. FT. INCHES —	20 10 5 12 500	80 15 15 18 1000	320 20 30 24 1500	640 25 50 36 2000	2000(G)			
350	SEDIMENT BASIN (EXCEPT FOR ANIMAL WASTE)		WEIR CAPACITY NET DROP	C.F.S. FEET	100* 2*	200* 3*	300* 4*	400 3	500 4			
378	POND (EMBANKMENT)		WEIR CAPACITY NET DROP	C.F.S. FEET	100* 4	200* 6	300* 8	300 10	300 12			
587	STRUCTURE FOR WATER CONTROL IRRIGATION REGULATING RESERVOIR	BOX DROP TO CULVERT TOEWALLS CHUTES	WEIR CAPACITY NET DROP WEIR CAPACITY NET DROP CAPACITY	C.F.S. FEET C.F.S. FEET C.F.S.	100* 2* 100* 4 50	200* 3* 200* 6 100	300* 4* 300* 8 200	400 3 300 10 250	500 4 300 12 300			
552			DRAINAGE AREA	ACRES	50	200	600	1300	ALL			
412	GRASSSED WATERWAY		AREA	SQ. FT.	10000	30000	ALL					
561	HEAVY USE AREA PROTECTION		AREA IRRIGATED	ACRES	20	40	80	ALL				
442	IRRIGATION SYSTEM, SPRINKLER		PUMP CAPACITY	GPM	300	500	1000	ALL				
449	IRRIGATION WATER MANAGEMENT		AREA IRRIGATED	ACRES	20	40	80	ALL				
447	IRRIGATION SYSTEM, TAILWATER RECOVERY		PUMP CAPACITY	GPM	300	500	1000	ALL				
430	IRRIGATION WATER CONVEYANCE		AREA IRRIGATED	ACRES	20	40	80	ALL				
AA (Aluminum) DP (Plastic)			AREA IRRIGATED	ACRES	20	40	80	ALL				
468	LINED WATER OR OUTFLET		DESIGN CAPACITY (d)	C.F.S.	10	30	100	150	ALL			

**ATCP 50 Appendix E**

**WISCONSIN ADMINISTRATIVE CODE**

STD. CODE	PRACTICE	SUB-PRACTICE	CONTROLLING FACTORS	UNITS	JOB CLASS					MAX APPROVAL LIMIT			
					I	II	III	IV	V	PLNG	DESIGN	CONST	
634	MANURE TRANSFER		PUMPED	A.U.	100	300	ALL						
			GRANITY	A.U.	100	300	ALL						
			RECEPTION TANK (e)	FEET	150	250	400						
719	MILKING CENTER WASTEWATER TREATMENT SYSTEM		RECEPTION TANK (e)	EACH	STAND DRAW	ALL							
			FREQUENT HALL	EACH	ALL								
			RIDGE AND FURROW	EACH	ALL								
			CONSTRUCTED WETLAND	EACH	ALL								
			SUBSURFACE ABSORPTION BUFFER	EACH	ALL								
500	OBSTRUCTION REMOVAL		OBSTRUCTION LOCATION	EACH	LAND	STREAM	ALL						
			DESIGN VELOCITY	E.P.S.	2	4	6	8	10				
582	OPEN CHANNEL		DESIGN CAPACITY	C.F.S.	100	200	300	500	1000				
516	PIPELINE		LENGTH	FEET	300	1000	2500	5000	ALL				
			PRESSURE	P.S.I.	25	50	100	200	300				
378	POND (EXCAVATED)		SURFACE AREA	ACRES	1/2	1	ALL						
521A	POND SEALING OR LINING, FLEX. MEM. LINING		AREA TREATED	ACRES	1/4	1/2	1	2	ALL				
521C	POND SEALING OR LINING, BENTONITE TREAT.		AREA TREATED	ACRES	1/4	1/2	1	2	ALL				
533	PUMPING PLANT		PROPELLER	GPM	500	2000	7500						
			CAPACITY	FE.	5	10	15						
			CENTRIFUGAL	GPM	500	1000	1500	2000	3500				
			STATIC HEAD	FE.	50	100	200	300	350				
568	RECREATION TRAIL AND WALKWAY		TURBINE	GPM	500	1000	1500	2000	3000				
			CAPACITY	FE.	50	100	200	300	350				
588	ROOF RUNOFF STRUCTURE		STATIC HEAD	FT.	50	100	200	350	500				
			LENGTH	MILES	0.5	ALL							
350	SEDIMENT BASIN, LIVESTOCK		ROOF SIZE (EACH)	SQ. FT.	1500	300	ALL						
			WALL HT. (STANDARD)	FEET	2*	4*	5*	6*	8*				
725	SINKHOLE TREATMENT		WALL HT. (NON-STD.)	FEET	2	4	5	6	8				
			CONTRIBUTING AREA	SQ. FT.	10000	30000	ALL						
572	SPILL SPREADING		NUMBER	EACH	ALL								
			AREA	ACRES	0.5	ALL							
574	SPRING DEVELOPMENT		ESTIMATED FLOW	G.P.M.	ALL								
			WAVE HEIGHT	FEET	0	0	1	2	3				
580	STREAMBANK AND SHORELINE PROTECTION	LAKESHORES	C.F.S.	100	300	1000	2000	5000					
			CAPACITY (f)	VELOCITY (f)	FEET	2	4	6	8	10			
606	SUBSURFACE DRAIN		CHANNEL MODIFICATION	FEET	100	300	500	1000	ALL				
			FISH HABITAT	FEET	100	300	500	1000	ALL				
607	SURFACE DRAINAGE, FIELD DITCH		PIPE SIZE	INCHES	4	6	8	12	ALL				
			DRAINAGE AREA	ACRES	10	20	50	100	ALL				
608	SURFACE DRAINAGE, MAIN OR LATERAL		DESIGN CAPACITY	C.F.S.	2	4	6	8	10				
			DESIGN VELOCITY	E.P.S.	100	200	300	5000	1000				
600	TERRACE	GRADIENT	EMBANKMENT HEIGHT	FEET	2	3	3	ALL					
			UNDERSROUND OUTLET	EMBANKMENT HEIGHT	FEET	3	4	6	8	ALL			

STD. CODE	PRACTICE	SUB-PRACTICE	CONTROLLING FACTORS	UNITS	JOB CLASS					MAX. APPROVAL LIMIT			
					I	II	III	IV	V	PLNG	DESIGN	CONST	
620	UNDERGROUND OUTLET	STRUCTURAL FACILITIES	PIPE SIZE DESIGN STORAGE VOLUME PROQUALIFIED (g) WALL HT. (NON-STD)(g)	INCHES CU. FT. EACH FEET	4	6	8	12	ALL				
313	WASTE STORAGE FACILITY	EARTHEN EMBANKMENT IN-PLACE EARTH POND CLAY LINER GEO-MEMBRANE & GEO-SYNTHETIC CLAY LINER CONCRETE LINER	EFFECTIVE HEIGHT (a)	FEET	2	4	6	8	10*				
			DESIGN CAPACITY	CU.FT.	60000	200000	500000	1M	2M				
			DESIGN CAPACITY	CU.FT.	60000	200000	500000	1M	2M				
			DESIGN CAPACITY	CU.FT.	60000	200000	500000	1M	2M				
			DESIGN CAPACITY	CU.FT.	60000	200000	500000	1M	2M				
			DESIGN CAPACITY	CU.FT.	60000	200000	500000	1M	2M				
635	WASTEWATER TREATMENT STRIP	INFILTRATION OVERLAND BUFFERS MILKING CENTRE	CONTRIBUTING AREA CONTRIBUTING AREA CONTRIBUTING AREA VOLUME	SQ. FT. SQ. FT. SQ. FT. G.P.D.	5000 5000 5000 200	10000 10000 10000 300	30000	ALL					
638	WATER AND SEDIMENT CONTROL BASIN	EMBANKMENT HEIGHT STORAGE (b)	FEET AC. FT.	5 5	10 10	15 15		ALL					
642	WATER WELL	DIAMETER ESTIMATED DEPTH	INCHES FEET	4 --	6 100	8 200	12 300	ALL					
614	WATERING FACILITY (402)	WELL DECOMMISSIONING	NUMBER	EACH	ALL								
			ESTIMATED DEPTH	FEET	100	300	500	ALL					
			ESTIMATED DEPTH	FEET	10	25	ALL						
351	WELL DECOMMISSIONING	DRILLED WELL DRIVEN WELL POINT DUG WELL	SURFACE AREA	ACRE	1/2	1	ALL						
			TILE BREAK	INCHES	6	12	ALL						
			DEPTH	FEET	4	6	ALL						
			DRAINAGE AREA	ACRES	80	160	320	640	ALL				
			EFFECTIVE HEIGHT (a)	FEET	4	6	10	ALL					
657	WETLAND RESTORATION	EMBANKMENT	DRAINAGE AREA	ACRES	20	40	80	160					
			STORAGE (b)	AC. FT.	5	15	30	50					

**\*STANDARD DETAIL DRAWINGS**

**NOTES:**

- CERTIFICATION IS NOT GRANTED FOR PRACTICES NOT SHOWN.
- OTHER RESTRICTIONS MAY APPLY AS NOTED
- TO OBTAIN COPIES OF THE ABOVE REFERENCED PRACTICE STANDARDS, SEE THE USDA-NRCS, WISCONSIN TECHNICAL GUIDE, OR APPENDIX E OF ATCP 50, WISCONSIN ADMINISTRATIVE CODE

**FOOTNOTES**

- DIFFERENCE IN ELEVATION IN FEET BETWEEN THE AUXILIARY SPILLWAY CREST TOP OF EMBANKMENT IF NO AUXILIARY SPILLWAY AND THE LOWEST POINT IN THE CROSS SECTION TAKEN ALONG THE CENTRAL LINE OF THE EMBANKMENT
- STORAGE - TOTAL STORAGE CAPACITY AT TOP OF THE DAM IN ACRE- FEET
- EFFECTIVE HEIGHT MUST BE LESS THAN 6 FEET
- LINED WATERWAY OR OUTLET (468) - THE JOB CLASS WILL BE BASED ON THE 10 YEAR 24 HOUR DURATION PEAK DISCHARGE.
- THE MNTC DRAWING NOS. 5E-33.001 AND 5F-33.002 AND WISCONSIN STANDARD DRAWINGS IN THE 740 SERIES ARE CLASSIFIED AS NON-STANDARD DRAWINGS.
- MAXIMUM DESIGN VELOCITY AND THE CHANNEL CAPACITY AT THE DESIGN VELOCITY.
- PROQUALIFIED STRUCTURES CAN BE FOUND IN CHAPTER 17 OF THE ENGINEERING FIELD HANDBOOK.