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Iowa Department of Natural Resources Wastewater Section Construction Permit Application SCHEDULE O, Aeration Tanks or Basins DNR USE ONLY Project No.

Permit No.

Date Revised         1. Classification of Process:         2. Design Loadings: (waste entering tank unit operations)       ADW       AWW       MWW       PHWW         Design Temp:       "F       BODs, mg/l	Date Prepared	Project Identity								
1. Classification of Process:         2. Design Loadings: (waste entering tank unit operations)       ADW       AWW       MWW       PHWW         Design Temp:       "F       BODs, rmg/l										
2. Design Loadings: (waste entering tank unit operations) ADW AWW MWW PHWW Flow, MGD Design Temp:	Date Revised									
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Pesign Temp:       "F       BOD, mg/l			rationa)		A\A/\A/	N 41 A /1 A /				
Design Temp:       "F       BODs, mg/l	2. Design Loaunigs.			ADW	AVV VV					
TSS, mg/l	р. і. <b>т</b>		-							
NH <sub>3</sub> -N, mg/l	Design Temp	·: 'F	_							
3. Aeration tank unit operation follows:			-							
4. Design data: First stage:										
Parameter       Unit 1       Unit 2       Unit 3         Specify whether new or existing	3. Aeration tank un	it operation follows:			and precedes:					
Specify whether new or existing	4. Design data: Firs	t stage:			Second stage:					
Specify whether new or existing		Parameter	Ur	nit 1	Unit 2		Unit 3			
Dimensions (length x width)	Specify whethe									
SWD (ft)		-								
Freeboard (in)										
Effective Volume (gal)	,									
Detention time at AWW flow (hrs)		e (gal)								
BOD Loading (#/D/1,000 ft <sup>3</sup> )										
Air provided (ft <sup>3</sup> /#BOD <sub>3</sub> )										
Oxygen Provided (#O <sub>2</sub> /#BOD <sub>5</sub> )										
F/M Ratio										
MLSS/MLVSS (mg/l)										
SRT (days)		אר (ו) ועסע								
Hydraulic Loading (gpm/ft <sup>2</sup> )		'6/ '/								
Sludge Return:       Percent	· · · · · ·	ng (gnm/ft <sup>2</sup> )								
Sludge Return:       GPM		Percent								
Gallons of Waste Sludge @       % solids	Sludge Return:									
Sludge Wasting       Method Location	Gallons of Wast	-								
Sludge Wasting       Location         5. Is service bypass provided?       Yes       No         Discharge to:		Method								
5. Is service bypass provided? Yes No Discharge to:   6. Is cold weather protection provided? Yes No How:      7. Aeration Equipment: Design Air Temperature: °F to °F   A. Rotors: Number of Rotors: Dimensions: °F   A. Rotors: Number of Rotors: Dimensions: inches   Each HP Maximum submergence: inches   Cross Section velocity fps   Specify provisions for cross-sectional velocity control   B. Diffusers: Number of Blowers:   Type of Diffusers: Each   CFM at psi   Total CFM of air required: Provided:   Each HP   Rated Capacity: #O <sub>2</sub> /hour	Sludge Wasting									
6. Is cold weather protection provided? Yes No How:   7. Aeration Equipment: Design Air Temperature: °F to °F   A. Rotors: Number of Rotors: Dimensions: °F   A. Rotors: Number of Rotors: Dimensions: inches   Each HP Maximum submergence: inches   Cross Section velocity fps   Specify provisions for cross-sectional velocity control   B. Diffusers: Number of Blowers:   Type of Diffusers: Reach   CfM at psi   Total CFM of air required: Provided:   Each HP   Rated Capacity: #O <sub>2</sub> /hour	5 Is service hypass		Discharg	e to:						
7. Aeration Equipment:       Design Air Temperature:       °F to       °F         A. Rotors:       Number of Rotors:       Dimensions:       °F         A. Rotors:       Number of Rotors:       Dimensions:       inches         Each       HP       Maximum submergence:       inches         Cross Section velocity       fps       specify provisions for cross-sectional velocity control         B. Diffusers:       Number of Blowers:       Each       CFM at       psi         Type of Diffusers:       Total CFM of air required:       Provided:			_							
A. Rotors: Number of Rotors: Dimensions: Dimensions: Leach HP Maximum submergence: Inches Cross Section velocity fps Specify provisions for cross-sectional velocity control B. Diffusers: Number of Blowers: Each CFM at psi Type of Diffusers: Each Provided: Number/Tank: Total CFM of air required: Provided: C. Mechanical: Number and Type of Unit: Each HP Rated Capacity: #0 <sub>2</sub> /hour 8. Sludge Return Pump Number of Pumps: Type: Each GPM	-	-			 າ	°F				
Each       HP       Maximum submergence:       inches         Cross Section velocity       fps         Specify provisions for cross-sectional velocity control         B. Diffusers:       Number of Blowers:       Each       CFM at       psi         Type of Diffusers:       Total CFM of air required:       Provided:										
Cross Section velocity       fps         Specify provisions for cross-sectional velocity control         B. Diffusers:       Number of Blowers:         Each       CFM at         Type of Diffusers:       Number/Tank:         Total CFM of air required:       Provided:         C. Mechanical:       Number and Type of Unit:         Each       HP         Rated Capacity:       #O <sub>2</sub> /hour         8. Sludge Return Pump       Number of Pumps:         Type:       Each					•	inches				
Specify provisions for cross-sectional velocity control         B. Diffusers:       Number of Blowers:       Each       CFM at       psi         Type of Diffusers:       Number/Tank:       Number/Tank:         Total CFM of air required:       Provided:       Vertical         C. Mechanical:       Number and Type of Unit:       Each       #O2/hour         8. Sludge Return Pump       Number of Pumps:       Type:       Each       GPM					···	menes				
B. Diffusers:       Number of Blowers:       Each       CFM at       psi         Type of Diffusers:       Number/Tank:       Number/Tank:         Total CFM of air required:       Provided:         C. Mechanical:       Number and Type of Unit:         Each       HP         Rated Capacity:       #O <sub>2</sub> /hour         8. Sludge Return Pump       Number of Pumps:       Type:										
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Each         HP         Rated Capacity:         #O2/hour           8. Sludge Return Pump         Number of Pumps:         Type:         Each         GPM	C. Mechanical:	C. Machanical: Number and Type of Unit:								
8. Sludge Return Pump Number of Pumps: Type: Each GPM	e. meenamean	· · · · · ·	P Rated C			our				
Rated TDH: Required TDH.	Rated TDH: Required TDH:									
Range: GPM to GPM Type of Control:										