St. Joseph County Department of Health

"Promoting physical and mental health and facilitating the prevention of disease, injury, and disability for all St. Joseph County residents"

FLOOD DOSE WORKSHEET

This worksheet must be accurately completed and submitted with the site plan which demonstrates all aspects of the trench system.

SYSTEM SPECIFICATIONS: See Department of Health specification sheet for information

Soil Load Rate _____ Required absorption area _____ ft² Required gallons per minute _____

Daily Design Flow (DDF): ____ gallons = number of bedrooms/equivalents ___ x 150, or 450 (whichever is greater)

SEPTIC TANK: New:_____ Existing:_____ Size:_____gallons Manufacturer:_____

DOSE TANK: New:_____ Existing:_____ Size:_____gallons Manufacturer:_____

Internal dimensions: Width:_____inches, Length:_____inches, _____gallons per inch or foot (circle one)

ABSORPTION FIELD: (check one) ___Aggregate/pipe ___Chambers ___Other:_____

Lateral separation: _____ feet on-center. Minimum trench depth:_____" Maximum trench depth:_____"

Chambers: Manufacturer: _____ Length per chamber:_____ feet.

Total number of chambers:_____ Number of Chambers per run or trench:_____

Trenches: Number:_____ Length:_____ feet. Width:_____ feet. Total square footage:_____

Bed: Length:_____feet, Width:_____feet, Total absorptive area: _____square feet.

Additional/Misc. info: _____

DISTRIBUTION NETWORK:

Only pressure rated pipe, fittings (couplers, reducers, elbows, tee's, etc.) will be used. ____Yes ____No

Effluent force main: Length**:_____feet. Diameter:_____inches. Volume*:_____(length X volume/foot)
(must be 1" to 4")

* If line drains to the dose tank, this is drain-back amount to be added to the actual dose to determine float settings.

Pipe diameter:	1"	1¼"	1½"	2"	3"	4"
Gallons/foot:	.045	.078	.106	.174	.384	.650

**Is any portion of the force main deeper than than 60": _____yes _____no.

If yes, what length will NOT drain:_____feet. (Subtract this amount from the total length before calculating drain-back volume)

Effluent force main drains to:

_____ D-box: Total dose is DDF Total dose: _____ gallons

_____ Dose tank: Total dose is DDF + Drain-back Total dose: _____ gallons

Drawdown distance:

Pump on/off distance: _____ inch or feet (x) _____ gallons per inch or foot = _____ total dose amount in gallons.

Friction loss in effluent force main: *Sec. 76 (h) Table IX of Rule 410 IAC 6-8.3.

Friction loss at _____gpm = _____*feet per 100 ft. of _____ inch diameter pipe.

*Pipe diameter:	1"	1½"	2"	2½"	3"	4"
90° Elbow :	2.6'	4.3'	5.2'	6.2'	7.7'	10.1'
45° Elbow:	1.4'	2.1'	2.8'	3.3'	4.1'	5.4'
Check valve:	8.7'	13.4'	17.2'	20.6'	25.5'	33.6'

Calculate friction loss from fittings using chart:
List each fitting by type and corresponding value.
Example (for 2"): 2-90° elbows at 5.2' = 10.4'
Add up total equivalent length for each fitting type to get "Friction loss length from fittings" to use below.
FITTINGS List:

Length force main _____ (+) Friction loss length from fittings _____ = _____ total effective length in feet.

Number from Table IX:_____ (x) _____total effective length in feet/100 = _____ **Friction loss**

PUMP: Manufacturer: _____ Model: _____ Horse power: _____

Performance curve included with TDH and gpm plotted: _____ Yes _____ No

Pump is adequate, but not oversized: _____Yes _____ No

Dosing Tank will be set up in compliance with Sec. 64 and Sec. 65 of the State Rule: _____Yes _____ No

Junction box(es) will be located outside the dosing tank and riser, and shall be in accordance with Sec. 65 of the State Rule: _____ Yes _____ No

All Septic Tanks and Dosing Tanks will have risers in accordance with Sec. 61-64 of the State Rule: _____ Yes _____ No

Each Dose Tank will be equipped with an audible and visual alarm on a separate circuit from the pump: _____ Yes _____ No

Pump will stay submerged at all times: _____ Yes _____ No

TOTAL DYNAMIC HEAD:

A. Total Friction Loss in Delivery Line = _____ feet

B. Elevation Difference (Pump-off to D-Box) = _____ feet
(Or highest elevation in force main)

C. System Design Head = _____0_____ feet

Total Dynamic Head = _____ feet
(A + B + C)