QUARTERLY MONITORING REPORT
WATER BALANCE (2-Cell System)

Reporting Period _____
HCSFO Name _____
HCSFO Permit # _____
Source Name _____
Number of Impoundments _____

Provide data in shaded cells:

ALLOWABLE SEEPAGE VOLUMES

	CELL 1				CELL 2		
(1)	Effective Seepage Area:		square feet		Effective Seepage Area:		square feet
(2)	Allowable Seepage Rate:		cm/sec		Allowable Seepage Rate:		cm/sec
(3)	Number of Days in Period:		days		Number of Days in Period:	0	days
(4)	**Allowable Seepage Volume:**	**0**	**gallons**		**Allowable Seepage Volume:**	**0**	**gallons**

(4a) **TOTAL ALLOWABLE SEEPAGE VOLUME** **0** **gallons**

INFLOW / OUTFLOW SUMMARY

	Inflows				Outflows		
(5)	Quarterly Recorded Precipitation:		inches	(11)	Quarterly Recorded Evaporation:		inches
(6)	Effective Precipitation Area (Cell 1):		square feet	(12)	Pan Evaporation Coefficient:		
(6)	Effective Precipitation Area (Cell 2):		square feet	(13)	Effective Evaporation Area (Cell 1):		square feet
(7)	Precipitation Volume:	**0**	gallons	(13)	Effective Evaporation Area (Cell 2):		square feet
(8)	Process Water & Manure Inflow:		gallons	(14)	Evaporation Volume:	**0**	gallons
(9)	Transfer from other source:	0	gallons	(15)	Land Application Volumes:	0	gallons
(10)	Total Inflow	**0**	gallons	(16)	Transfer to other source:	0	gallons
				(17)	Total Outflow	**0**	gallons

(18) **INFLOW / OUTFLOW DIFFERENCE:** **0** **gallons**

OBSERVED IMPOUNDMENT LEVEL CHANGE

	CELL 1				CELL 2		
(19)	Impoundment Level Change:		feet	(19)	Impoundment Level Change:		feet
(20)	Impoundment Volume Change:		gallons	(20)	Impoundment Volume Change:		gallons

(21) **TOTAL IMPOUNDMENT VOLUME CHANGE:** **0** **gallons**

SEEPAGE DETERMINATION

(22)	Allowable Impoundment Change:	**0**	gallons
(23)	Observed Impoundment Change:	**0**	gallons
(24)	Is Seepage Rate Exceeded?	**YES**	

QUARTERLY WATER BALANCE NOTES

(1) Effective Seepage Area is the wetted area of the lagoon based on quarterly impoundment level readings.

(2) Allowable Seepage Rate is the maximum seepage rate allowed under CDPS Regulation No. 61.13(4)(c)(iii).

(3) Number of days in the quarterly monitoring period.

(4) Allowable Seepage Volume = (1) x (2) x (3), with unit conversions.

(4a) Total Allowable Seepage Volume = (1) x (2) x (3), with unit conversions; sum of all impoundments.

(5) Precipitation as recorded from nearest weather station or on-site data.

(6) Effective Precipitation Area is the surface area at the top of the berm of the impoundment.

(7) Precipitation Volume = (5) x (6), with unit conversions.

(8) Process Water and Manure Inflow is the volume determined using meter readings for water input and from book values for manure production. This volume includes accounting for human water consumption, pig consumption and aspiration, wash water not directed to the lagoons and water losses in the barn.

(9) Water transfer (input) from other sources as applicable.

(10) Total Inflow = (7) + (8) + (9)

(11) Evaporation data as recorded at nearest reporting station or from on-site data. Negative number.

(12) Pan Evaporation Coefficient taken from Estimating Evaporation From Water Surfaces by Marvin E. Jensen (please note the state average is .70) If another source is used please provide a foot note.

(13) Effective Evaporation Area is the same as the effective seepage area found in (1)

(14) Evaporation Volume = (11) x (12) x (13), with unit conversions. Negative number.

(15) Land application volumes as applicable. Negative number.

(16) Water transfer (output) to other sources as applicable. Negative number.

(17) Total Outflow = (14) + (15) + (16). Negative number.

(18) Inflow / Outflow Difference = (17) + (10)

(19) Impoundment level change (in feet) during the quarter. (-) means decreasing volume, (+) means increasing volume.

(20) Impoundment volume change (in gallons) during the quarter. (-) means decreasing volume, (+) means increasing volume.

(21) Total impoundment volume change for both impoundments

(22) Allowable impoundment change = Allowable Seepage Volume (4a) + Inflow/Outflow Difference (18)

(23) Observed impoundment change = Impoundment Volume Change Totals (21)

(24) For purposes of the water balance only, if Observed Change (23) is less than Allowable Change (22), then seepage is not exceeded.