

Using the implementation criteria in OAC 785.46 and 252.690, pollutants are screened to determine if there is reasonable potential (RP) for the effluent to exceed any applicable numerical water quality criteria (see "CRIT" worksheet). Wasteload allocations are then calculated for each pollutant and all applicable criteria if there is RP for any of the pollutant's applicable criteria to be exceeded (see "WLA" worksheet). If PCS data for a parameter limited in the previous permit indicates any monthly avg or daily max limit violations, then water quality-based limits must be retained in the new permit for that parameter, regardless of whether RP is exhibited. Agricultural mineral calculations are found in the Ag tab.

OWQScreen-S

Version
3.35

Reasonable Potential (for Limits)

GLENPOOL PIPELINE BREAKOUTSTATION

Outfall	Instream Pollutant Conc [C _i] and Potential to Exceed OWQS Numerical Criteria (for Effluent Limits)															
Parameter	Units	Eqn 2 Aesthetics	PPWS		F&WP		Fish Consump	C _d > OWQS Criteria? *						RP FLAG		
			Eqn 3 Raw Water	Eqn 4 Human Hlth FF & Water	Aquatic Toxicity		Eqn 9 Human Hlth Fish Flesh	A E S	R A W	F W	F A	C	F F			
					Eqn 5 Acute	Eqns 6 - 8 Chronic										
PART A																
Ammonia																
PART B																
Color																
Fluoride (at 90 deg F)	mg/l															
Nitrate-Nitrite (as N)	mg/l															
Phosphorus (as P) (Scenic Rivers only)	mg/l															
Barium, total	mg/l															
Manganese, total																
METALS and CYANIDE																
Antimony, total																
Arsenic, total	ug/l															
Beryllium, total																
Cadmium, total	ug/l															
Chromium, total	ug/l															
Copper, total	ug/l															
Lead, total	ug/l		11.70	7.62	0.01	0.85	7.62		NO	YES	NO	NO	NO			
Mercury, total	ug/l															
Nickel, total	ug/l															
Selenium, total	ug/l															
Silver, total	ug/l															
Thallium, total	ug/l															
Zinc, total	ug/l		32.44		0.02	2.37			NO		NO	NO				
Cyanide, total	ug/l															
DIOXINS																
2,3,7,8-Tetrachlorodibenzo-P Dioxin	ug/l															
GC/MS FRACTION - VOLATILE COMPOUNDS																
Acrolein	ug/l															
Acrylonitrile	ug/l															
Benzene	ug/l															
Bromoform																
Carbon Tetrachloride	ug/l															
Chlorobenzene																
Chlorodibromomethane																
Chloroethane																
2-Chloroethylvinyl Ether																
Chloroform	ug/l															
Dichlorobromomethane	ug/l															
1,1-Dichloroethane																
1,2-Dichloroethane																
1,1-Dichloroethylene																
1,2-Dichloropropane																
1,3-Dichloropropylene																
Ethylbenzene	ug/l															
Methyl Bromide																
Methyl Chloride																
Methylene Chloride																
1,1,2,2-Tetrachloroethane																
Tetrachloroethylene	ug/l															
Toluene	ug/l															
1,2-Trans-dichloroethene																
1,1,1-Trichloroethane	ug/l															
1,1,2-Trichloroethane																
Trichloroethylene																
Vinyl Chloride																
GC/MS FRACTION - ACID COMPOUNDS																
2-Chlorophenol																
2,4-Dichlorophenol																
2,4-Dimethylphenol																
4,6-Dinitro-o-cresol																
2,4-Dinitrophenol																
2-Nitrophenol																
4-Nitrophenol																
p-Chloro-m-cresol																
Pentachlorophenol	ug/l															
Phenol	ug/l															
2,4,6-Trichlorophenol																
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS																
Acenaphthene																

Outfall		Instream Pollutant Conc [C _i] and Potential to Exceed OWQS Numerical Criteria (for Effluent Limits)													RP FLAG	
Parameter	Units	Eqn 2 Aesthetics	PPWS		F&WP		Fish Consump Eqn 9 Human Hlth Fish Flesh	C _i > OWQS Criteria? *								
			Eqn 3 Raw Water	Eqn 4 Human Hlth FF & Water	Aquatic Toxicity			A E S	R A W	F F W	A	C	F F			
					Eqn 5 Acute	Eqns 6 - 8 Chronic										
Acenaphthylene																
Anthracene																
Benidine	ug/l															
Benzo (a) Anthracene																
Benzo (a) Pyrene																
3,4-Benzofluoranthene																
Benzo (ghi) Perylene																
Benzo (k) Fluoranthene																
Bis (2-Chloroethoxy) Methane																
Bis (2-Chloroethyl) Ether																
Bis (2-Chloroisopropyl) Ether																
Bis (2-Ethylhexyl) Phthalate	ug/l															
4-Bromophenyl Phenyl Ether																
Butylbenzyl Phthalate	ug/l															
2-Chloronaphthalene																
4-Chlorophenyl Phenyl Ether																
Chrysene																
Dibenzo (a,h) Anthracene																
1,2-Dichlorobenzene																
1,3-Dichlorobenzene																
1,4-Dichlorobenzene																
3,3'-Dichlorobenzidine																
Diethyl Phthalate	ug/l															
Dimethyl Phthalate	ug/l															
Di-n-butyl Phthalate	ug/l															
2,4-Dinitrotoluene																
2,6-Dinitrotoluene																
Di-n-octyl Phthalate																
1,2-Diphenylhydrazine (as Azobenzene)																
Fluoranthene																
Fluorene																
Hexachlorobenzene	ug/l															
Hexachlorobutadiene																
Hexachlorocyclopentadiene																
Hexachloroethane																
Indeno (1,2,3-cd) Pyrene																
Isophorone																
Naphthalene																
Nitrobenzene																
n-Nitrosodimethylamine																
n-Nitrosodi-n-propylamine																
n-Nitrosodiphenylamine																
Phenanthrene																
Pyrene																
1,2,4-Trichlorobenzene																
GC/MS FRACTION - PESTICIDES																
Aldrin	ug/l															
alpha-BHC																
beta-BHC																
gamma-BHC	ug/l															
delta-BHC																
Chlordane	ug/l															
4,4'-DDT	ug/l															
4,4'-DDE																
4,4'-DDD	ug/l															
Dieldrin	ug/l															
Endosulfan, total (α + β)	ug/l															
Endosulfan Sulfate																
Endrin	ug/l															
Endrin Aldehyde																
Heptachlor	ug/l															
Heptachlor Epoxide																
PCB-1242																
PCB-1254																
PCB-1221																
PCB-1232																
PCB-1248																
PCB-1260																
PCB-1016																
Toxaphene	ug/l															
ADDITIONAL PARAMETERS																
Chlorides																See AG Worksheet
Sulfates																See AG Worksheet
Total Dissolved Solids (TDS)																See AG Worksheet
2,4,5-TP	ug/l															
2,4,6-Trinitrotoluene	ug/l															
2,4-D	ug/l															

Outfall		Instream Pollutant Conc [C _d] and Potential to Exceed OWQS Numerical Criteria (for Effluent Limits)											RP	
Parameter	Units	Eqn 2 Aesthetics	PPWS		F&WP		Fish Consump Eqn 9 Human Hlth Fish Flesh	C _d > OWQS Criteria? *						RP FLAG
			Eqn 3 Raw Water	Eqn 4 Human Hlth FF & Water	Aquatic Toxicity			A E S	R A W	F F W	A	C	F F	
					Eqn 5 Acute	Eqns 6 - 8 Chronic								
Bis-chloromethyl ether														
Chlorpyrifos (Dursban)	ug/l													
Demeton	ug/l													
Detergents, total	mg/l													
Diazinon	ug/l													
Dinitrophenols														
Guthion	ug/l													
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	ug/l													
Malathion	ug/l													
Methoxychlor	ug/l													
Methylene Blue Active Substances	ug/l													
Mirex	ug/l													
n-Nitrosodibutylamine														
n-Nitrosodiethylamine														
n-Nitrosopyrrolidine														
Nonylphenol (mixed isomers)	ug/l													
Parathion	ug/l													
PCB's, total	ug/l													
Pentachlorobenzene														
Perchlorate	ug/l													
Phthalate Esters (except Butylbenzyl)	ug/l													
1,2,4,5-Tetrachlorobenzene														
2,4,5-Trichlorophenol														

Equations Used to Calculate Instream Pollutant Concentrations after Mixing (C _d) *		
Criterion	Eqn No.	C _d Equation
Aesthetics	Eqn 2	$C_d = (C_{95} Q^* + C_b) / (1 + Q^*)$
Raw Water	Eqn 3	$C_d = (C_{95} Q^{***} + C_b) / (1 + Q^{***})$
HH / Fish Flesh and Water	Eqn 4	$C_d = (C_{95} Q^{**} + C_b) / (1 + Q^{**})$
Acute Toxicity	Eqn 5	$C_d = C_b + Q_a(C_{95} - C_b) / 64.63$
Chronic Toxicity	Q* <= 0.1823	Eqn 6
	0.1823 < Q* < 0.3333	Eqn 7
	Q* >= 0.3333	Eqn 8
HH / Fish Flesh	Eqn 9	$C_d = (C_{95} Q^{**} + C_b) / (1 + Q^{**})$

* Based on background levels in EBDATA worksheet. Impact of zero background levels assessed in BTC worksheet.

Flow Data (and applicable screens)		Q* (AES)	Q* (Chronic)	Q** (FFW, FF)	Q*** (RAW)	Qe (Acute)	Note: Q** = Q*** for municipal dischargers only.
Type Facility:	INDUS	0.0297	0.0297	1.0000	3.3000	0.0297	