



ALASKA
Department of
Environmental
Conservation

2010 Cruise Ship Final Permit

Daily limits vary based upon the type of wastewater treatment system used on the ship.

	ammonia (mg/L)	copper (ug/L)	nickel (ug/L)	zinc (ug/L)
stationary	12 to 28	26 to 87	10 to 63	112 to 395
underway	12 to 143	10 to 157	10 to 63	112 to 395

Municipal Wastewater Treatment Plants with Marine Outfalls

City	Ammonia		Copper		Nickel		Zinc limits	
	Daily Limit	Max Result	Limit	Max Result	Daily Limit	Max Result	Daily Limit	Max Result
Homer	Report	64	None	None	None	None	None	None
Cordova	Report	17	None	None	None	None	None	None
Wrangel	Report	25	None	None	None	None	None	None
Skagway	None	None	Monthly Avg. 150 ug/L	187	None	None	None	None
			Daily Max. 210 ug/L	187				
Sitka	Report	35	Monthly Avg. 243 ug/L	122	None	None	None	None
			Daily Max. 354 ug/L	122				
Petersburg	Report	34	None	None	None	None	None	None
Haines	None	None	Monthly Avg. 78 ug/L	60	None	None	None	None
			Daily Max. 156 ug/L	60				
Seward	Report	68	None	None	None	None	None	None
Juneau/Douglas	Report	12	Report	32.6	None	5.95	None	82.7
Kodiak	Report	15.7	None	None	None	None	None	None
Craig	None	None	None	None	None	None	None	None

Period evaluated January 2005 through December 2009