

APPENDIX B

LABORATORIES AND LABORATORY ANALYSES

B-1. Minimum analyses for Army water treatment plants. The minimum number and frequency of analyses to insure drinking water of acceptable quality are determined by the size of the system and the treatment required. The frequency of analyses must also be adjusted locally to meet changing raw water characteristics. For purposes of establishing the required analytical frequency, water treatment plants have been divided into two classes, Class A and Class B. A Class A plant is any plant employing treatment beyond chlorination. A Class B plant is any plant which provides only chlorination. Minimum analysis frequencies are listed in table B-1.

Table B-1. Minimum Analysis Frequencies

PLANT CLASS		MINIMUM ANALYTICAL FREQUENCY	CONSTITUENT/ANALYSES
A	B		
X	X	2/day	Chlorine residual
X	X	2/day-plant, 2/week-system	Fluoride <sup>1</sup>
X	X	8/month for first 1,000 population. One additional sample/month for each 1,000 additional population.	Total Coliform <sup>2</sup>
X	X	2/month	Total Plate Count <sup>2</sup>
X	X	1/day	Turbidity (surface water)
X		1/day	Hardness <sup>1</sup>
X		1/day	Alkalinity <sup>1</sup>
X	X	2/day	pH
X		2/month	Temperature
X		2/month	Calcium
X		2/month	Total Filtrable Residue
X		1/week	Iron <sup>1</sup>
X		1/week	Manganese <sup>1</sup>
X		1/day to 2/month	Coagulation Test (where chemical addition is employed)

<sup>1</sup> Where controlled.

<sup>2</sup> The installation medical authority is responsible for bacteriological sampling of the potable water supply. However, in some instances (e.g., due to the remoteness of medical laboratory support), it may be desirable to have bacteriological surveillance capability available at the water treatment plant. Facilities engineering personnel should coordinate such instances with the installation medical authority to prevent needless duplication of equipment.

U. S. Army Corps of Engineers