

SABESP – BASIC SANITATIO COMPANY OF SÃO PAULO’S STATE

RVOC – SANITARY CONTROL DIVISION FROM PARAÍBA VALLEY

REGISTRATION OF SANITARY SEWAGE TREATMENT SYSTEM

CITY: LORENA	
Urban population	75097 hab (IBGE 2000)
Population served by the system	81578 (3,69 X 22108)
Per capita consumption	200 L/hab day
Return rate	80% - 160 L / hab day
Habitant number / ligation	3,69 (IBGE 2000)
System	Ampliation (02 modules of Australian ponds)
Treatment type	2 anaerobical ponds in series with 2 facultative ponds
Address	Ave. 2, without number (cabelinha neighbourhood)
Operation start	2002 (ampliation)
Installation license	Process 41/00161/98; date 90/10/1999, Number 41000012
Project flow (L/s)	568,00
Usual nominal caption (L/s)	463,00
Treatment flow (L/s)	150
Preliminary treatment	GG+CP
Sewage ligation number	22108 (date: December/2003)
Estimated domestic contribution	22108X3,69X0,054 kgBOD/day = 4405 kgBOD/day
Industrial contribution	0,0 kgBOD/day
Kg DBO contribution / day total	4405kgBOD/day
Sewage volume day	0,160 m <sup>3</sup> X 3,69X 22108 = 13052 m <sup>3</sup> /day
ANAEROBICAL SYSTEM	
Usable area	200m X 100m A=20000m <sup>2</sup>
Usable volume	(3m height) X 20000m <sup>2</sup> V=60000m <sup>3</sup>
Usable depth	3,00m
Ideal depth	2,5 – 4,0 m
Detention time	60000m <sup>3</sup> /13052m <sup>3</sup> /day=(2 to 7) 4,6 days (each pond)
Ideal detention time	3 to 7 days
Application rate	(1500 to 3000) 1101 kgBOD/ha day (each pond)
Ideal application rate	1500 to 2000 kgBOD/ha day
FACULTATIVE SYSTEM	
Facultative pond dimensions	400m X 200m A=80000m <sup>2</sup>
Usable volume	(1,50m height) X 80000m <sup>2</sup> V=120000m <sup>3</sup>
Usable depth	1,50m
Ideal depth	1,5 to 2,0 m
Detention time	120000m <sup>3</sup> /13052m <sup>3</sup> /day = 9,2 days (each pond)
Ideal detention time	15 to 20 days

Application rate	50% load removal on the anaerobical pond – 137kgBOD/ha day
Maximum surface application rate	170 kgBOD/ha day
% last trimester attendance	78 (sep/03 – oct/03 – nov/03)
Receptor of the effluent	South Paraiba river
Class	2
Information date	02/09/2004