

kerosene is required. The temperature of bath water is kept at 42 °C by continuous warming everyday, requiring 3,600 dm³ of kerosene. When filter is cleaned, water (2 m) is heated from 15 to 42 °C, requiring 273 dm³ of kerosene. Meanwhile, in the 10 % system, whole water is heated from 15 to 42 °C everyday, requiring 19,136 dm³ of kerosene. Thus, the amount of fuel in the 100% system is *ca.* one-fifth compared with that of 10% system.

Electrical power consumed in a year was also calculated. In the 100 % system, electricity is used for pumping of bath water, ozone generation, and heating in ozone decomposition apparatus. The total electrical power was calculated to be 24,090 kW. In the 10 % system, electricity is used for pumping of bath water and ozone generation. These require 21,900 kW of electrical power. The electrical power in the 100 % system is *ca.* 1.1 times compared with that of 10 % system, being no remarkable difference.

Thus, when the total amount of consumed water, fuel, and electrical power in the 100 % system is compared with that of 10 % system, it is clear that the 100 % ozone system is an excellent eco-design model.

Conclusions

- 100 % system was very effective for purification of bath water.
- This system is a very excellent eco-design model.

References

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