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Evaluasi kualitas air produk air minum produksi depot air minum isi ulang dikabupaten Sleman  
Propinsi DIY  
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## EVALUASI KUALITAS AIR PRODUK AIR MINUM PRODUKSI DEPOT AIR MINUM ISI ULANG DI KABUPATEN SLEMAN PROVINSI DIY

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### Intisari

Penelitian ini bertujuan untuk mengetahui kualitas air minum produksi Depot Air Minum Isi Ulang (DAMIU) dan air minum dalam kemasan (AMDK), berdasarkan indikator bakteriologi (*Total Coli*) dan kimiawi, ( $\text{NO}_2^-$ ,  $\text{NO}_3^-$ ,  $\text{Fe}^{2+}$ , dan pH) di Kabupaten Sleman, membandingkan kualitas air minum produksi DAMIU dengan AMDK di Kabupaten Sleman, dan mengetahui faktor-faktor yang mempengaruhi kualitas air minum produksi DAMIU di Kabupaten Sleman.

Sampel air minum DAMIU berasal dari DAMIU yang ditentukan secara *Quota Sampling*, sedangkan sampel air minum AMDK ditentukan secara *Simple Random Sampling*. Pengujian laboratorium sampel air minum DAMIU dan AMDK menggunakan standar baku mutu air minum berdasarkan Kepmenkes No.907/1h.2002. Hasilnya dibandingkan untuk mengetahui mana yang lebih baik antara keduanya. Operasional DAMIU diidentifikasi dengan hasil wawancara dengan operator DAMIU, dan pengamatan kondisi DAMIU, kemudian hasilnya dibandingkan dengan Kepmenperindag No.651/Th.2004. Hasil pengujian laboratorium sampel air minum DAMIU dan hasil identifikasi operasional DAMIU yang tidak sesuai pedoman dianalisis dengan diagram *ishikawa*, untuk mengetahui faktor-faktor yang mempengaruhi kualitas air minum DAMIU.

Kandungan Fe,  $\text{NO}_3^-$ ,  $\text{NO}_2^-$ , dan pH pada seluruh sampel air minum produksi DAMIU telah memenuhi standar baku mutu air minum, sedangkan kandungan bakteri *total coli* sampel air minum DAMIU masih belum seluruhnya memenuhi standar baku mutu air minum. Berdasarkan kandungan bakteri *total coli*, kualitas air sampel air minum AMDK lebih baik dibandingkan kualitas air sampel air minum DAMIU, dan berdasarkan kandungan nitrit ( $\text{NO}_2^-$ ) maka sampel air minum DAMIU kualitasnya lebih baik dibandingkan sampel air minum AMDK, sedangkan berdasarkan indikator besi ( $\text{Fe}^{2+}$ ), nitrat ( $\text{NO}_3^-$ ) dan derajat keasaman (pH) sampel air minum DAMIU dan AMDK memiliki kualitas air yang relatif sama baiknya. Berdasarkan analisis diagram *ishikawa*, kualitas air minum produksi DAMIU sangat dipengaruhi oleh kualitas air baku (bahan baku/material), proses dan mesin/peralatan (teknologi) yang digunakan dalam pengolahan air minum, lingkungan produksi (sekitar ruang produksi), dan sumberdayamasyarakat (SDM).

**Kata kunci** : DAMIU, AMDK, Air Minum, Kualitas Air, *Total Coli*, Diagram *Ishikawa*



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**WATER QUALITY EVALUATION OF DRINKING WATER PRODUCT  
PRODUCED BY REFILL DRINKING WATER DEPOT  
IN SLEMAN REGENCY  
PROVINCE OF DIY**

By

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**Abstract**

*The aims of the research are to know the quality of drinking water produced by refill drinking depot (DAMIU) and packaged drinking water (AMDK), based on bacteriology (total coli) and chemically ( $NO_2^-$ ,  $NO_3^-$ ,  $Fe^{2+}$ , pH) indicators in Sleman Regency, compare the drinking water quality produced by DAMIU with AMDK quality in Sleman regency, and to know the influence factors of drinking water quality produced by DAMIU in Sleman regency.*

*Samples of DAMIU drinking water taken from DAMIU that chosen by Quota Sampling, while AMDK drinking water chosen by Simple Random Sampling. Laboratory testing of DAMIU and AMDK drinking water samples using Kepmenkes No.907/Th.2002, as drinking water quality standard. The result of drinking water quality laboratory testing of DAMIU and AMDK are compared to know which one is better. The DAMIU operational identified by interview with DAMIU operator and DAMIU observation results, then the results compared to Kepmenperindag No.651/Th.2004. The result of drinking water produced by DAMIU laboratory testing and identification result of DAMIU operational that unsuited base on the manual, analyzed with ishikawa diagram, to know the influence factors of water drinking produced by DAMIU.*

*The amount of  $NO_2^-$ ,  $NO_3^-$ ,  $Fe^{2+}$  and pH (acidity) in entire water drinking samples produced by DAMIU are suitable with water drinking quality standard, while total coli number of some samples more than water drinking quality standard. AMDK drinking water better than DAMIU base on total coli number, but DAMIU drinking water better than AMDK base on nitrite ( $NO_2^-$ ) amount, while both drinking water of AMDK and DAMIU base on amount of iron ( $Fe^{2+}$ ), nitrate ( $NO_3^-$ ), and acidity (pH) has same good quality relatively. Base on ishikawa diagram analysis, the influence factors of water drinking produced by DAMIU are basic material (basic water), technology, production room environmental, and human resource (SDM).*

**Key word:** DAMIU, AMDK, Drinking Water, Water Quality, Total Coli, Ishikawa Diagram