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The 2nd International Seminar
on Environmental Health



Proceeding

**WATER and
GREEN HOSPITAL**

**December 3 - 4th, 2011
Surabaya**

**Department of Environmental Health
Faculty of Public Health**

Paralell Session A		
Chair Person : Retno Adriyani, ST, M.Kes		
Time	Title	Code
14.00 – 14.15	The Influence of Calcium Level in Drinking Water and Urine to Calcium Stone Occurrence on Male at Ra'as Village, Klampis Subdistrict, Bangkalan, Madura Fitriyah Amin Daman , Faculty of Health Science, Wiraraja University	OP01
14.15 – 14.30	Drinking Water Supply in Poultry Company Sidoarjo Denny Ardyanto , Faculty of Public Health, Airlangga University	OP02
14.30 – 14.45	How Water, Sanitation and Personal Hygiene Influence the Nutrition Status of Children Under Five Years in East Kalimantan ? Ratih Wirapuspita , Faculty of Public Health, Mulawarman University	OP03
14.45 – 15.15	Discussion	
15.15 – 15.30	Source of Drinking Water and Beverages/Drink Expenditure Among Two Different Ecological Area in East Java Indonesia Triska S Nindya , Faculty of Public Health, Airlangga University	OP04
15.30 – 15.45	E. Coli Contamination in Drinking Water in Canteen of Universitas Indonesia Dewi Susanna , Faculty of Public Health, Indonesia University	OP05
15.45 – 16.00	Effect of Relationships Between Water, Personal Hygiene and Numbers of Illness at IBT Adaro Mekarputih Elementary Student Pulau Laut – Kotabaru – South Kalimantan 2010 Qomariyatus Sholihah , Faculty of Medicine, Lambung Mangkurat University	OP06
16.00 – 16.30	Discussion	
Paralell Session B		
Chair Person : Sudarmaji, SKM, M.Kes		
Time	Title	Code
14.00 – 14.15	Environmental Health Risk Due To Exposure of Cu (Copper) in Mahakam River With The Environmental Health Risk Assessment (EHRA) Blego Sedinoto , Public Health Faculty, Mulawarman University	OP07
14.15 – 14.30	Study of E. Coli Contents in The Sea Water of Coastal Tourist Places in Ambon Island Nurlaila Marasabessy , Health Polytechnic of Moluccas	OP08
14.30 – 14.45	Assessment and Use of Water Unit Reject Hemodialysis Dr. Soetomo Hospital Surabaya Abdul Chodir , Dr. Soetomo Hospital Surabaya University	OP09
14.45 – 15.15	Discussion	

ENVIRONMENTAL HEALTH RISK DUE TO EXPOSURE OF Cu (COPPER) IN
MAHAKAM RIVER WITH THE ENVIRONMENTAL HEALTH RISK
ASSESSMENT(EHRA)

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ABSTRACT

Objectives. According to Arung (2010), Mahakam River content of copper (Cu), about 1.15 mg / L. Therefore it is necessary to predict exposure of Cu contained in the Mahakam River to Environmental risk.

Method. The research is done to find out how big the human health risks due to exposure to Cu (Copper) in Mahakam River water with the method of Environmental Health Risk Assessment (EHRA) by identification hazard, dose-respon assesment, exposure assessment and risk management . Risk for intake no cancer risk refer to if risk quotient (RQ) > 1 so the risk to health, while the risk of cancer if excess cancer risk (ECR)= >E-4 so that no cancer risk.

Result. Predict exposure of Cu contained in the Mahakam River to Environmental risk is $RQ > 1$ (risk no cancer effect and $ECR < E-4$ (no risk cancer effect). Three exposure duration is 1 year, 5 years, and 10-year, values obtained RQ (1 year) is 4.45; RQ (5 years) amounted to 22.26; and RQ (10 years), namely 43.33, whereas for the calculation of the results obtained ECR (1 year) is 2.45×10^{-3} ; ECR (5 years) 4.29×10^{-3} ; and ECR (10 years) is 8.59×10^{-3} .

Conclusion. Consumption of water in the Mahakam River risk to health (no cancer effect). Waste water management shipbuilding industry as a source of Cu contamination in the Mahakam required to do wastewater treatment before disposal and water treatment community needs to do first before using the Mahakam river water. and monitoring water to be must continue.

Key word ; Environmental Health Risk,Cu,Mahakam