



## Fellowship on the Review and Assessment of Meteorology Aspects in Nuclear Power Plant Siting Application



I was awarded a six-month fellowship by the International Atomic Energy Agency (IAEA) Fellowship Program. I am undergoing my fellowship at Office of New Reactors, Division of Site Safety and Environmental Analysis (DSEA), Environmental Technical Support Branch - US Nuclear Regulatory Commission in Washington DC, under the direction of Mr. Ryan Whited (Chief of Environmental Support Branch) and Ms. Stacey Imboden (Senior Project Manager – Office of New Reactors).

During my fellowship, I engaged in safety and environmental review aspects of meteorology in nuclear power plant siting application. I assisted in the preparation of environmental impact assessments for proposed new nuclear power plants (NPPs), specifically in the areas of meteorology and air quality, and the review and assessment of meteorology, climatology, and dispersion of released radioactive material section as described in Nuclear Regulation (NUREG) guidance document-0800, Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants.

I also had opportunities to work with experts in NPP siting including the assessment and comparison of alternate sites, to understand about NRC's technical reviewer to review process effectively for both safety and environmental reviews, to identify suitable parameters for use to establish meteorological design criteria for plant components, namely for safety: affect the design and/or operation of structures, systems, and components important to safety, on site meteorological monitoring and doing separate / comparison calculations of Final Safety Analysis Report (FSAR) for short term dispersion estimates for accidental atmospheric releases and long term dispersion estimates for accidental atmospheric releases using some computer code, that is PAVAN, XQDOQ, and ARCON96.

I also took the opportunity to conduct of public meeting and inspection trip to Nuclear Power plant site. US NRC also involved me to participate in training courses at the NRC Professional Development Center in NRC Headquarters in Rockville, Maryland to enhance my expertise and support my work at NRC. As a reviewer in regulatory body institution, the knowledge I gained will be used for evaluate and review Environmental report and Final Safety Analysis Report (FSAR) for nuclear installation and to anticipate the filing of an application of Nuclear Power Plant in the near future.

I completed my undergraduate degree at University of Lampung in 2004 in Chemistry. In 2007 I pursued to continue on to receive Master Engineering degree in Technology and Energy Systems, which I received in 2009 from Gadjah Mada University. I have worked for the Indonesian Nuclear Energy Regulatory Agency (BAPETAN) since 2005. This IAEA fellowship will not only beneficial for me, my institution and the country of Indonesia's future nuclear development.

**RAHMAT EDHI HARIANTO**

**INDONESIA**

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