

of Synoptic Situations on the Trajectories of Air Masses Coming From Nuclear Power Plants Located in Neighboring Countries to Cuba

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The radiological station located in Havana, Cuba will perform measurements for the International Monitoring System. The Turkey Point and Laguna Verde Nuclear Power Plants are potential sources of noble gases on a regional scale. The objective of this work is to identify the synoptic situations that would contribute to the transit of air masses coming from these facilities through Cuba. For that purpose, the forward trajectories of the air masses were estimated by means of the HYSPLIT trajectory model. The simulations were run at an altitude of 500 meters and in periods where Cuba was under the influence of a classic cold front, the nearby influence of the Oceanic Anticyclone, the influence of a low pressure center of wide circulation in the western region and the influence of a weak barometric gradient. The results obtained with the HYSPLIT trajectory model showed that the transit of the air masses coming from the Turkey Point Nuclear Power Plant would only occur if Cuba were under the influence of a weak barometric gradient. In the case of the Laguna Verde Nuclear Power Plant, it was found that for none of the synoptic situations analysed would the air masses cross the Cuban territory.

E-mail

caveda@cphr.edu.cu

Promotional text

The objective of my presentation is to show how synoptic situations influence the estimated trajectories of the air masses coming from the Turkey Point and Laguna Verde Nuclear Power Plants.

Oral preference format

in-person

Primary author: CAVEDA RAMOS, Celia Angelica (Center for Radiation Protection and Hygiene)

Co-authors: Ms RAMOS VILTRE, Enma Odalys (Center for Radiation Protection and Hygiene); Mr CÁRDENAS HERRERA, Juan (Center for Radiation Protection and Hygiene); Mr GRIÑAN TORRES, Reinaldo (Center for Radiation Protection and Hygiene)

Presenter: CAVEDA RAMOS, Celia Angelica (Center for Radiation Protection and Hygiene)

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