***ABSTRACT***

*This study aims to determine the dose of occupational exposure to radiation during daily quality assurance tests on Single Photon Emission Computed Tomography (SPECT-CT) aircraft and determine the effect of the decay of cobalt-57 activity on the dose received by radiation workers during the daily quality assurance test and analyze the effectiveness of using aprons to protect radiation workers. The research will be carried out by calculating the decay of Cobalt-57 activity from the 15$^{th}$ March 2024 to the 5$^{th}$ April 2024 and measuring radiation dose exposure when carrying out extrinsic calibration on SPECT-CT using the Smart Rad brand pen dose. The research results obtained from this data show that the less Cobalt-57 activity decreases, the greater the daily exposure to radiation dose received by SPECT-CT Quality Control (QC) workers. The results of the difference in dose exposure received by radiation workers are not very significant between those using an apron and without using an apron when carrying out daily QC on SPECT-CT because the dose exposure value received is still below the Dose Limit Value (NBD) for radiation workers.*

*Keywords: Extrinsic Test, Cobalt-57 Activity, SPECT-CT, Apron Pb*