

## ENHANCING OF THE YOGYAKARTA NUCLEAR FACILITIES SAFETY AND SECURITY SYSTEM, BY IMPLEMENTING THE SIRESS DIGITAL APPLICATION

Every activity related to the utilization of nuclear power must pay attention to the security, peace, welfare, safety and health of workers and community members, as well as protection of the environment. Further provisions relating to safety and security are regulated in Indonesian Government Regulation (GR) No. 33 of 2007 concerning Safety of Ionizing Radiation and Security of Radioactive Sources and Government Regulation No. 54 of 2012 concerning Safety and Security of Nuclear Installations. The nuclear power regulatory agency also issued a regulation head of Indonesian Regulatory body (BAPETEN) No. 1 of 2009 concerning the provisions of a physical protection system, which regulates the physical protection of nuclear facilities.

The Center for Accelerator Science and Technology (PSTA) as one of the work units at the National Nuclear Energy Agency (BATAN) has the main tasks and functions of research and development in the field of particle physics, process technology and research reactor utilization. As a nuclear center in Yogyakarta, every year PSTA is visited by more than 2000 people to conduct research or conduct study visits and other services. Guests who visit PSTA come from all over Indonesia and even from abroad, such as experts from the IAEA. The large number of visitors who come to PSTA has the potential to become a security threat if it is not managed properly. In order to improve the security level of nuclear facilities, a digital application has been built to register guests online. The project entitled "Register Safety and Security Information System (SIRESS)" is an important breakthrough in order to improve the safety and security of nuclear facilities as one of the vital objects that must be safeguarded for safety and security from the past. This SIRESS application is also a demand of the industrial revolution, which utilizes information technology in facilitating and streamlining the resources of both funds and humans. In terms of security, all visitors can register online from anywhere and at any time. All visitor data is digitally managed, so it's easy to track. Guests or visitors who will come to PSTA can first register online through the SIRESS application on a smartphone or on a portable computer. Visitors register by filling in the personal data needed and also photos. Visitors who have registered online will get a QR code, and will be validated by security officers when they come to PSTA. Safety side tie, the SIRESS application also provides tests on work safety and radiation protection for students or students who conduct research at PSTA. This test is intended to measure students' understanding of occupational safety and radiation protection. With the SIRESS application it is expected that the safety and security of PSTA nuclear facilities can be further improved.

### State

Indonesia

### Gender

Male

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