REGULATION OF HEAD OF NUCLEAR ENERGY SUPERVISORY AGENCY

NUMBER 1 YEAR 2009

ABOUT

CONDITIONS OF PHYSICAL PROTECTION SYSTEM INSTALLATION AND NUCLEAR MATERIALS

BY THE GRACE OF GOD ALMIGHTY

HEAD OF THE NUCLEAR ENERGY SUPERVISORY AGENCY,

Considering: whereas in order to implement the provisions of Article 12 paragraph (2) letter f and paragraph (3) Government Regulation Number 43 of 2006 concerning Nuclear Reactor Licensing, and the provisions of Article 22 paragraph (2) of the Regulation Government Number 26 of 2002 concerning Safety Transportation of radioactive substances, it is necessary to stipulate a Head Regulation Nuclear Energy Regulatory Agency on Provision of Protection Systems Physical Installation and Nuclear Materials;

Remember :

1. Law Number 10 of 1997 concerning Nuclear Energy (State Gazette of the Republic of Indonesia Year 1997 Number 23, Supplement to the State Gazette of the Republic of Indonesia Indonesia Number 3676);

2. Government Regulation Number 26 of 2002 concerning Transport of Radioactive Substances (State Gazette of the Republic of Indonesia Indonesia Year 2002 Number 51, Supplement to the State Gazette Republic of Indonesia Number 4201);

3. Government Regulation Number 43 of 2006 concerning Licensing Nuclear Reactor (State Gazette of the Republic of Indonesia Year 2006 Number 106, Supplement to the State Gazette of the Republic of Indonesia Indonesia Number 4668);

4. Government Regulation Number 29 of 2008 concerning Licensing Utilization of Ionizing Radiation Sources and Nuclear Materials (State Gazette of the Republic of Indonesia of 2008 Number 54, Supplement to the State Gazette of the Republic of Indonesia Number 4839);

5. Decree of the President of the Republic of Indonesia Number 49 of 1986 concerning Ratification of the Convention on the Physical Protection of Nuclear Materials;

6. Regulation of the Head of BAPETEN Number 3 of 2006 concerning Non-reactor Nuclear Installation Licensing;

7. Regulation of the Head of BAPETEN Number 10 of 2006 concerning Guidelines for Compiling an Installation Safety Analysis Report Nuclear Nonreactor;

DECIDE:

To stipulate: REGULATION OF THE HEAD OF THE NUCLEAR ENERGY SUPERVISORY AGENCY CONCERNING CONDITIONS OF PHYSICAL PROTECTION SYSTEM INSTALLATION AND NUCLEAR MATERIALS.

PIG
GENERAL REQUIREMENTS

article 1

In this Regulation of the Head of the Nuclear Energy Supervisory Agency, which is meant by:

1. Nuclear materials are materials that can produce reactions chain cleavage or materials that can be transformed into materials that can produce chain cleavage reactions.
2. Nuclear Installation is:
   a. nuclear reactor;
   b. facilities used for purification, conversion, enrichment of nuclear materials, fabrication of nuclear materials and or reprocessing of spent nuclear fuel; and/or

c. facilities used to store fuel
nuclear and spent nuclear fuel.

3. Nuclear Installation Entrepreneurs, hereinafter referred to as PINs, are:
responsible individual or legal entity
responsible for the operation of nuclear installations.

4. Unauthorized transfer is theft or
taking nuclear material without permission and knowledge
responsible for nuclear materials.

5. Layered defense is a concept used to
designing a physical protection system in an effort to overcome the enemy
with layered obstacles, either of the same shape or
different.

6. Transport of radioactive substances is the transfer of radioactive substances
from one place to another through the traffic network
public, by using land, water or
air.

7. Sabotage is any intentional unlawful act
carried out or directed against a nuclear installation or material
used, stored or transported, which
pose a radiation hazard to workers, the public
and the environment, either directly or indirectly.

8. *Design basis threats* are the nature and
characteristics of the enemy from inside and outside used
as a foundation or rationale for designing and evaluating
physical protection system.

9. Local design basic threats are nature and characteristics
internal and external enemies that are specific to the region in
around the installation site, and is used as a foundation or
reasons for PIN to design and evaluate systems
physical protection.

10. The basic threat of national design is the nature and characteristics
national and external enemies, and

used as a foundation or rationale for designing and evaluate physical protection systems.

11. Alarm is a technical equipment used to give warning of intrusion or tampering.
12. Inner area is a location contained in protected area, where class I nuclear materials are used and/or saved.
13. Protected area is the assessment location for nuclear materials group I or II are present, and/or vital areas surrounded by physical barrier.
14. Vital area is a location within a place protected area nuclear equipment, systems, or materials are located, where possible sabotage occurred.
15. *Intrusion detection* is a way find and determine the existence of something or someone who is suspected of being committed by a person or system consisting of sensors, transmission medium and control panel to sound the alarm.
16. Appraiser is a person and/or equipment that performs functions evaluation.
17. Assessment is an act of continuous monitoring carried out by people and/or photoelectric equipment, CCTV *(Closed Circuit Television),* sound detectors, electronic devices otherwise, photographic or otherwise, and determination by person or equipment about the cause of the alarm signal.
18. Patrol is an activity carried out by guards who are given the task of checking elements of physical protection, including barriers physical and intrusion detection devices, periodically or intermittently time so that the element can be observed in the long term certain time.
19. Physical barriers are fences or walls or anything similar installed for access control and delay

infiltration.

20. Guard is a member of the security unit (security guard) who responsible for patrolling, monitoring, appraisal, escort of persons or transportation, access control and to carry out the initial response.
21. A transport control center is an installation which monitoring the location of the vehicle, the state of security continuously and communicating with the vehicle carrier, guard, response unit and sender/receiver.
22. The responding unit is a member of the POLRI or TNI who is on or off site armed and equipped adequately and properly trained to deal with the threat of sabotage or unauthorized transfer of nuclear material.
23. A central alarm station is an installation that provides continuous and complete monitoring of alarms, conduct assessments and communicate with carers, nuclear installation management and response units.
24. A contingency plan is a series of systematic and planned actions taken to anticipate an emergency caused by threats to the installation and/or nuclear materials, and/or threats during the transportation of materials nuclear.
25. Bulk nuclear material waste is nuclear material in the form of bulk that can no longer be used.
26. Sender is a person or entity that prepares shipments for the transport of radioactive substances and declared in the transport document.
27. Recipient is a person or entity that receives a substance radioactive from the sender and stated in the document transportation.
28. Nuclear Energy Supervisory Agency, hereinafter referred to as BAPETEN is the body in charge of implementing

supervision through regulation, licensing, and inspection against all activities using nuclear energy.

CHAPTER II

SCOPE AND OBJECTIVES

Section 2

This Regulation of the Head of BAPETEN regulates the physical protection system for :

a. nuclear installations, including radiometallurgical installations; and

b. nuclear material during use, storage, and transportation.

Article 3

This Regulation of the Head of BAPETEN aims to ensure that:

implementation of physical protection systems against installations and materials nuclear power effectively and efficiently.

CHAPTER III

PHYSICAL PROTECTION SYSTEM

Article 4

(1) PIN is required to establish, implement, and maintain the system physical protection of nuclear installations and materials based on local design basic threats.

(2) The physical protection system as referred to in paragraph (1) aims:

a. prevent unauthorized transfer of materials nuclear;

b. recover lost nuclear material;

c. prevent sabotage of nuclear installations and materials; and

d. mitigate the consequences of sabotage.

(3) The physical protection system as referred to in paragraph (1) consists of: over the equipment set, installation, personnel and

programs/procedures that collectively provide
protection of nuclear installations and materials.

Article 5

(1) The PIN is obligated to establish a local design base threat with
coordinate with relevant agencies.

(2) The basic threat of local design as referred to in paragraph
(1) refers to the national design basic threat.

(3) The basic threat of local design as referred to in paragraph
(1) evaluated periodically and adjusted to conditions
current threat.

Article 6

(1) The physical protection system must have the main functions which include:

a. counteract *(deter);*

b. detect *(detect);*

c. assess *(assess);*

d. delay *(delay);* and

e. respond *(response).*

(2) The physical protection system must have certain characteristics,
that is:

a. adapted to the safety system in nuclear installations;

b. have multiple layers of defense for physical protection;

c. have the minimum consequences of failure
component;

d. have a balanced protection; and

e. have protection on the basis of a graded approach.

(3) Detailed description of the main functions as referred to in paragraph (1)
and the characteristics of the physical protection system as intended
in paragraph (2) is given in attachment I which is inseparable
of this Regulation of the Head of BAPETEN.

Article 7

(1) The PIN must convey the physical protection system in the form of:
a physical protection plan document that is confidential to BAPETEN to get approval in order to meet the permit requirements.

(2) The physical protection plan as referred to in paragraph (1) contains a description of:
a. basic design threats;
b. organization and personnel of physical protection systems;
c. classification of nuclear materials;
d. procedures related to physical protection;
e. design and division of physical protection areas;
f. detection system;
g. physical barrier system;
h. the required access system;
i. communication system;
j. maintenance and surveillance;
k. contingency plans; and
l. documentation.

(3) The format and content of the physical protection plan must comply with Appendix II which is an integral part of Regulation of the Head of BAPETEN.

Article 8

(1) PIN must establish a physical protection organization as referred to in Article 7 paragraph (2) letter b.

(2) Organization of physical protection as referred to in paragraph (1) must consist of organizational elements, namely PIN, guards, and appraisers, with their respective responsibilities and authorities clear.

(3) The organizational elements as referred to in paragraph (1) must have the appropriate qualifications.

(4) In carrying out its duties, PIN must coordinate
with the response unit.

Article 9

For areas that have more than one nuclear installation,
then the PIN of each of these installations can do
coordination in the implementation of physical protection.

Article 10

PIN is required to establish and implement a quality assurance program
under the management system to ensure all requirements
physical protection has been implemented.

Article 11

PIN is required to develop procedures and work instructions for
establish, implement and maintain a physical protection system.

Article 12

The PIN is required to establish a mechanism to protect the information
confidential in relation to the physical protection system of installations and materials
nuclear.

Article 13

PIN is required to determine the division of the region which consists of regions
protection, vital areas, and/or deep areas.

Article 14

(1) PIN is required to provide system equipment and supplies
necessary physical protection.
(2) Equipment and equipment for physical protection systems in the form of:
detection, communication, physical barrier and control equipment
access.

Article 15

PIN must perform intrusion detection system testing, assessment and communication and other physical protection functions for determine the resilience of the system.

Article 16

(1) PIN is required to carry out evaluation of the protection system physique.

(2) The evaluation as referred to in paragraph (1) is carried out by PIN periodically or when the design base threat changes local.

(3) In terms of transportation, evaluation is carried out if it occurs incidents or delays during transportation for optimizing the effectiveness of physical protection in transport and future transportation.

(4) Periodic comprehensive evaluation of the protection system physical, including guard response time and response unit as referred to in paragraph (2) is carried out 1 (one) time in a year.

(5) The PIN is required to submit the evaluation results of the physical protection system as referred to in paragraph (2) to the Head of BAPETEN.

Article 17

(1) PIN is required to prepare and implement a contingency plan to anticipate the unauthorized transfer of nuclear material and/or sabotage of nuclear installations and materials in accordance with nuclear material class.

(2) The contingency plan as referred to in paragraph (1) must load at least:

a. criteria for starting and ending protection emergencies physical and follow-up procedures;

b. identification of data, criteria, procedures and mechanisms

affect the contingency plan specific to
nuclear installation or means of transportation efficiently;

c. the appointment of a person, group or organization who
responsible for every decision and action that
related to specific responses to emergencies
physical protection; and

d. identification of the source of the emergency.

(3) The contingency plan as referred to in paragraph (1) may
be part of a related nuclear preparedness program
with radiation accidents.

(4) PIN must hold training and/or rehearsal
emergency periodically 1 (one) time a year.

(5) Emergency training and/or rehearsal as intended
in paragraph (4) is carried out together with the response team
emergency installation.

CHAPTER IV

CLASSIFICATION OF NUCLEAR MATERIALS

Article 18

(1) Classification of nuclear materials is carried out based on:

a. potential risks of nuclear materials;

b. isotopic composition;

c. physical and chemical form;

d. concentration;

e. radiation level; and

f. amount of nuclear material.

(2) According to the type of element and its isotopic composition, the so-called
nuclear materials are:

a. plutonium, except those with the isotope concentration
plutonium-238 exceeds 80%;

b. uranium-235;

c. uranium-233;

d. uranium enriched with U-235 and/or U-233, including depleted uranium;

e. natural uranium;

f. thorium; and

g. a combination of nuclear materials a to f.

(3) Based on the amount, nuclear materials are grouped into 4 (four) groups, with a number for each group depending on the type of element or its isotopic composition.

(4) The table for the classification of nuclear materials is as follows listed in appendix III which is an integral part of Regulation of the Head of BAPETEN.

(5) Based on this classification of nuclear materials, PIN stipulates: level of application of physical protection systems for installations and nuclear materials in use, storage and transportation.

CHAPTER V
NUCLEAR MATERIAL PHYSICAL PROTECTION SYSTEM DURING USE AND STORAGE

Article 19

PIN establishes and implements material physical protection system nuclear power during use and storage to prevent illegal transfer of nuclear material in accordance with the class used and/or stored.

Part One
Group I

Article 20

(1) Class I nuclear materials must be used or stored only in the inner area, which is part of the protected area.

(2) Storage of class I nuclear materials as intended in paragraph (1) must be carried out in a sturdy room that is locked, monitored, and equipped with a detection system.

(3) If the class I nuclear material as referred to in paragraph (1) outside of working hours is left in the work area, or in the storage area in the work area, the PIN must be establish procedures for storing nuclear materials in the regions work.

Article 21

(1) The inner region as referred to in Article 20 paragraph (1) must be designed with ceilings, doors, walls and floors so that it can inhibit the transfer of nuclear material illegally.

(2) Any emergency exits and potential access points in the inner area must be sturdy and installed intrusion detection devices.

(3) The inner area should not be placed close to the area public.

Article 22

(1) The protected area as referred to in Article 20 paragraph (1) must be surrounded with a physical barrier that restricts protected areas, restricting access to buildings and prevent intrusion.

(2) The physical barrier as referred to in paragraph (1) may in the form of fences, walls, building walls with strong structures or a combination thereof.

(3) In the event that the walls of the building with strong construction are used as as the outer boundary of the protected area, then outside the wall a rating system must be installed.

Article 23

(1) The transfer of nuclear material between two protected areas must be carried out in accordance with the requirements for nuclear materials in transportation, taking into account the existing conditions.

(2) Protection against the transfer of nuclear materials between regions within the must be the same as protection against nuclear materials in the region in.

(3) The transfer as referred to in paragraph (2) must be get a special escort and use the vehicle or special containers.

(4) Other factors that the PIN should consider in the transfer nuclear material is distance, protection arrangements in nuclear installations and environmental threats.

Article 24

(1) Access to protected areas and interior areas without being escorted must be limited only to people who have gained legitimacy and trusted predetermined.

(2) Others such as guests, repair workers, maintenance or construction workers who will enter the protected area and the inner area must be guarded by the person authorized to enter unaccompanied, and all must use the sign identifier *(badge).*

(3) Identity of people entering protected areas and areas must be verified and recorded.

(4) The comparison of escorted guests with bodyguards must be adjusted so that the location and activities of guests are controlled.

(5) All people and/or packages entering and leaving the area should be examined and assessed.

(6) Access of motorized vehicles into the protected area must be as little and limited as possible.

(7) All motorized vehicles as referred to in paragraph (6) entering and leaving the protected area must be inspected, assessed, and parked in the designated place except in the inner area.

(8) If someone carries out activities in the inner area, then the area must be assessed continuously by two

one or more guards, either jointly or alternately, with the aim of ensuring that activities are always monitored by at least one guard.

Article 25

(1) Everyone who has the right to enter the protected area and/or internal area, the key person in charge of containment and/or place for storing nuclear materials must be recorded.

(2) Records as referred to in paragraph (1) must be kept.

(3) The PIN must make arrangements regarding:

a. the person in charge and control of taking and key return to minimize misconduct duplicate;

b. changing the key combination at a certain period of time; and

c. replacement of locks, locks or alterations combination, if there are things that are suspicious.

(4) All locks, their combinations and equipment used for control of access to protected areas or areas within or solid room as referred to in Article 20 paragraph (2) must be protected and monitored.

Article 26

(1) Intrusion detection must be installed on physical barrier around the protected area and assessed at all times.

(2) On both sides of the physical barrier as referred to in paragraph (1) there must be an empty area *(isolation zone)* that is free of view and light.

(3) All intrusion detection sensors as referred to in paragraph (1) must function and be recorded continuously by officers at the central alarm station to establish monitoring

and alarm assessment, early response and communication with guard, nuclear installation management and response units.

(4) Independent power supply and transmission must be installed on each detection sensor to the central alarm station as intended in paragraph (3).

(5) Alarm signal generated by intrusion detection sensor should be assessed immediately and appropriate action taken.

(6) The central alarm station as referred to in paragraph (3) must:

a. located in a protected area, and near the main gate; and

b. always maintained so that it can continue to function even though it occurs local design basic threats.

(7) Multi-frequency and redundant transmission system for two-way communication between central alarm station attendant as referred to in paragraph (3) and the responding unit must installed.

Article 27

(1) The guard must guard for 24 (twenty) four) hours a day and coordinate with the response unit.

(2) Guards must be fully trained and armed in run errands.

Article 28

(1) PIN must provide dissemination and/or training to all workers about the importance of physical protection and how to application of physical protection 1 (one) time a year so that all workers are accustomed and well coordinated under normal circumstances as well as emergency.

(2) Workers who have been given the training as referred to in paragraph (1) must be recorded and documented.

The second part
Group II

Article 29

(1) Class II nuclear materials must be used or stored only in the protected area.

(2) The transfer of nuclear material between the two protected areas must be carried out in accordance with the requirements for nuclear materials in transportation, taking into account the existing conditions.

(3) Other factors that the PIN should consider in transfer of nuclear material is distance, protection arrangements in nuclear installation sites and the existence of environmental threats.

(4) Access to protected areas should be limited as little as possible.

Article 30

(1) Storage of class II nuclear materials must be carried out in solid room in a locked, monitored and protected area equipped with a detection system.

(2) If the class II nuclear material as referred to in paragraph (1) outside of working hours is left in the work area, or in the storage area in the work area, the PIN must be establish procedures for storing nuclear materials in the regions work.

Article 31

(1) The protected area as referred to in Article 29 paragraph (1) must be surrounded with a physical barrier that restricts the protected area, restricting access to the building and prevent intrusion.

(2) The physical barrier as referred to in paragraph (1) may in the form of fences, walls, building walls with strong structures or a combination thereof.

(3) In the event that the walls of the building with strong construction are used as as the outer boundary of the protected area, then outside the wall a rating system must be installed.

Article 32

(1) Access to the protected area without being escorted shall be restricted to only to people who have gained legitimacy and are trusted previously determined.

(2) Others such as guests, repair workers, maintenance or construction workers who will enter the protected area must escorted by a person authorized to enter without being escorted, and all must use badge.

(3) The identity of the person entering the protected area must be verified and recorded.

(4) Comparison of guests who are escorted to bodyguards must be restricted so that the location and activities of guests are controlled.

(5) All people and/or packages entering and leaving the area protection should be checked and assessed.

(6) Access of motorized vehicles into the protected area must be as little and limited as possible.

(7) All motorized vehicles as referred to in paragraph (6) going in and out of the protected area must be inspected, assessed and parked outside the protected area.

Article 33

(1) Everyone who has the right to enter the protected area, and key person in charge of confinement and/or the place where nuclear material is stored must be recorded.

(2) Records as referred to in paragraph (1) must be kept.

(3) The PIN must make arrangements regarding:

a. checking and mastery of keys, especially for minimize the possibility of making duplicates;

b. changing the key combination at a certain period of time; and

c. replacement of locks, locks or alterations combination, if there are things that are suspicious.

(4) All locks, their combinations and equipment used for control of access to protected areas or sturdy rooms as referred to in Article 30 paragraph (1) must be protected and supervised.

Article 34

(1) Intrusion detection must be installed on physical barrier around the protected area and assessed at all times.

(2) On both sides of the physical barrier as referred to in paragraph (1) there must be an empty area that is free of view and light.

(3) All intrusion detection sensors as referred to in paragraph (1) must function and be recorded continuously by officers at the central alarm station to establish monitoring and alarm assessment, early response and communication with guard, nuclear installation management and response units.

(4) Independent power supply and transmission must be installed on each detection sensor to the central alarm station as intended in paragraph (3).

(5) Alarm signal generated by intrusion detection sensor should be assessed immediately and appropriate action taken.

(6) The central alarm station as referred to in paragraph (3) must is inside or outside the protected area in accordance with local design basic threats.

(7) Multi-frequency and redundant transmission system for two-way communication between central alarm station attendant as referred to in paragraph (3) and the responding unit must installed.

Article 35

(1) The guard must be carried out for 24 (twenty four) hours a day and the guards must coordinate with the unit responder.

(2) Guards must be fully trained and armed in run errands.

Article 36

(1) PIN must provide dissemination and/or training to all workers about the importance of physical protection and how to application of physical protection 1 (one) time a year so that all workers are accustomed and well coordinated under normal circumstances as well as emergency.

(2) Workers who have been given the training as referred to in paragraph (1) must be recorded and documented.

Part Three
Group III

Article 37

(1) Class III nuclear materials must be used or stored in areas whose access is controlled by providing protection or physical barriers in the form of fences, buildings, room, or container so that access to that place only limited to authorized workers.

(2) The PIN must make provisions that are carried out by the guards and/or response units to detect and deal with intrusion action.

Article 38

(1) Storage of class III nuclear materials must be carried out in in a locked, monitored and equipped sturdy room detection system.

(2) If the class III nuclear material as referred to in paragraph (1) outside of working hours is left in the work area, or in the storage area in the work area, the PIN must be establish procedures for storing nuclear materials in the regions work.

Article 39

(1) Areas where nuclear materials are used and/or stored must be surrounded with a physical barrier that restricts the area, restricting access to the building and blocking infiltration.

(2) The physical barrier as referred to in paragraph (1) may in the form of fences, walls, building walls with strong structures or a combination thereof.

(3) In the event that the walls of the building with strong construction are used as as the outer boundary of the area of use and/or storage nuclear material, then outside the wall can be installed scoring system.

Article 40

(1) Access to the area of use and/or storage of materials nuclear weapons without being escorted should be limited to those who has gained legitimacy and is trusted pre-determined

(2) Others such as guests, repair workers, maintenance or construction workers who will enter the use area and/or storage of nuclear materials must be controlled by people authorized to enter without being escorted, and all must use identification.

(3) The identity of the person entering the area of use and/or Nuclear material storage must be verified and recorded.

(4) Comparison of guests who are escorted to bodyguards must be restricted so that the location and activities of guests are controlled.

(5) All people and/or packages entering and leaving the area use and/or storage of nuclear materials must be checked and assessed.

(6) Access of motorized vehicles into the area of use and/or storage of nuclear material should be as little as possible and restricted, and limited by physical barriers in the form of fence.

(7) All motorized vehicles as referred to in paragraph (6) entering and leaving the area of use and/or Nuclear material storage must be inspected, graded, and parked outside the storage area and/or use area.

Article 41

(1) Everyone who has the right to enter the storage area and/or area of use, the key person in charge relating to confinement and/or storage nuclear material must be recorded.

(2) Records as referred to in paragraph (1) must be kept.

(3) PIN must make arrangements regarding:

a. checking and mastery of keys, especially for minimize the possibility of making duplicates;

b. changing the key combination at a certain period of time; and

c. replacement of locks, locks or alterations combination, if there are things that are suspicious.

(4) All locks, their combinations and equipment used for access control to use areas or sturdy rooms as referred to in Article 38 paragraph (1) must be protected and supervised.

Article 42

(1) Intrusion detection must be installed on physical barrier around the protected area and assessed at all times.

(2) On both sides of the physical barrier as referred to in paragraph (1) there must be an empty area that is free of view and light.

(3) All intrusion detection sensors as referred to in paragraph (1) must function and be recorded continuously by workers at the central alarm station to establish monitoring and alarm assessment, early response and communication with guards, nuclear installation management and response units.

(4) Independent power supply and transmission must be installed on each detection sensor to the central alarm station as intended in paragraph (3).

(5) Alarm signal generated by intrusion detection sensor should be assessed immediately and appropriate action taken.

(6) The central alarm station as referred to in paragraph (3) must is inside or outside the protected area in accordance with local design basic threats.

(7) Multi-frequency and redundant transmission system for two-way communication between central alarm station attendant as referred to in paragraph (3) and the responding unit must installed.

Article 43

(1) The guard must be carried out for 24 (twenty four) hours a day and the guards must coordinate with the unit responder.

(2) Guards must be trained in carrying out their duties.

Article 44

(1) PIN must provide dissemination and/or training to
all workers about the importance of physical protection and how to
application of physical protection 1 (one) time a year so that all
workers are accustomed and well coordinated under normal circumstances
as well as emergency.

(2) Workers who have been given the training as referred to in
paragraph (1) must be recorded and documented.

Part Four
Group IV

Article 45

(1) Class IV nuclear materials must be used or stored in
controlled access areas.

(2) PIN must provide dissemination and/or training to
all workers about the importance of physical protection and how to
application of physical protection 1 (one) time a year so that all
workers are accustomed and well coordinated under normal circumstances
as well as emergency.

CHAPTER VI
PHYSICAL PROTECTION SYSTEM AGAINST
TRANSPORTATION OF NUCLEAR MATERIALS

Article 46

(1) PIN must establish and implement physical protection system
against the transportation of nuclear materials in accordance with the class
transported nuclear material.

(2) If you have to stay overnight while transporting nuclear materials, then
Nuclear materials must be protected in accordance with the provisions of protection
physical properties for this class of nuclear materials.

Article 47

Before carrying out the transportation, the PIN must perform the following: coordination with response units.

Article 48

(1) Planning for physical protection of transportation is the responsibility of responsibility of the sender or according to the agreement.

(2) Before carrying out the carriage, the sender must:
submit a physical protection plan for the transportation of nuclear materials, including the contract of carriage agreement to the Head of BAPETEN.

(3) The contract of carriage agreement as referred to in paragraph (2) must clearly state the place and time transfer of responsibility for physical protection and ownership nuclear material from one party to another.

Article 49

During the transportation of nuclear materials, PIN must:

a. use special markings on vehicles; and

b. limiting communication channels.

Article 50

The recipient must check the integrity of the nuclear material package at the place of handover and immediately notify the results of the examination to the sender and BAPETEN.

Article 51

Physical protection system against transportation of class . nuclear materials I, II, and III include:

a. advance notification to the recipient;

b. selection of transportation modes and routes;

c. provisions on locks and seals;

d. inspection of transport vehicles;

e. actions after delivery;

f. communication;

g. Security; and

h. action in the event of an emergency.

Part One
Group I

Article 52

(1) The sender makes advance notice to
the recipient as referred to in Article 51 letter a
regarding the planned delivery by mentioning:
a. mode of transportation;
b. estimated time of arrival; and
c. the place for the delivery of goods when the handover is done
somewhere before the final destination.

(2) The recipient must notify the sender of
readiness to receive nuclear material at the specified time.

Article 53

(1) Selection of transportation mode as referred to in
Article 51 letter b is carried out taking into account the time
traveled and the route to be followed.

(2) The route selection as referred to in paragraph (1) is carried out
with:
a. considering the safety factor, especially the area
prone to disasters and/or prone to riots; and
b. take into account the ability of the responding unit.

(3) The sender must seek approval from the Head of BAPETEN in
Thing:
a. route that has been agreed upon by the sender and receiver,
including alternative routes;

b. stopping place;

c. arrangements for transfer at the destination;

d. the identity of the carrier;

e. contingency procedures; and

f. reporting procedures both under normal circumstances and in an emergency.

Article 54

(1) The mode of transportation as referred to in Article 52 paragraph (1) letter a includes:

a. land;

b. sea; and

c. air.

(2) Mode of land transportation includes:

a. mode of transportation by road; and

b. mode of transportation by rail.

Article 55

(1) Provisions of physical protection for the mode of transportation by road highway as referred to in Article 54 paragraph (2) letter a:

a. the sender is obliged to ensure the suitability of the vehicle, driver, and other personnel related to transportation;

b. the transport vehicle must be accompanied by a guard who specially armed and designed to withstand attack and is equipped with a safety lock and system immobilization that can be operated easily and quickly by the driver; and

c. the transport vehicle must be accompanied by at least:

1. a vehicle containing guards;

2. one spare transport vehicle;

3. one vehicle containing loading and unloading equipment;

4. one vehicle containing radiation protection officers and their

radiation protective equipment; and

5. one vehicle containing a response unit.

(2) The immobilization system as referred to in paragraph (1) letter b includes, among other things, systems that make vehicles not can be used by unauthorized persons and/or a device that can stop the supply of fuel, lock gears and wheels, disable the gas pedal or turn off the air brake.

Article 56

Provisions of physical protection for the mode of transport by train fire as referred to in Article 54 paragraph (2) letter b:

a. delivery must be made by freight carriage separate carriage;

b. shipments must be escorted by armed guards, response units and radiation protection officers located in the the special carriage closest to the carriage that is loading nuclear material; and

c. the guard who is on the train must be able communicate with the engineer in order to anticipate unscheduled travel times and train stops.

Article 57

Provisions of physical protection for modes of transport by water:

a. delivery must be made by freighter specifically designated for transporting packages of nuclear material;

b. each transport must be escorted by a guard who armed and radiation protection officers;

c. packages of nuclear material must be placed in a safes or locked or sealed containers; and

d. the carrier must be accompanied by at least one escort ship of the response unit.

Article 58

For the mode of transport by air, nuclear material packs must be the only type of goods transported by cargo plane.

Article 59

Provisions regarding locks and seals as referred to in Article 51 letter c is carried out as follows:

a. packages of nuclear material must be transported by vehicle closed and in locked containers;

b. before delivery is made, the sender must physical inspection of locks and seals on containers and rooms special items or compartments to ensure locks and seal in good condition; and

c. packages of nuclear material in locked containers and sealed with a weight of more than 2,000 (two thousand) kilograms can be transported in an open vehicle.

Article 60

The sender must inspect the transport vehicle as referred to in Article 51 letter d carefully before the goods loaded and shipped to ensure no sabotage or installation of sabotage tools.

Article 61

(1) Actions after delivery as referred to in Article 51 letter e must be carried out by the sender and the recipient.

(2) The sender is obliged to ensure that the package of nuclear materials received by the recipient.

(3) The recipient must ensure the integrity of the package, key, and seal as soon as the parcel arrives.

(4) The receiver notifies the sender of the arrival
packages of nuclear material, or in the case of packages of materials
Nuclear didn't come according to schedule.

Article 62

(1) Communication as referred to in Article 51 letter f
must be done between carrier, guard and control center
transportation.
(2) PIN is required to provide two-way communication equipment.
(3) The guard is obliged to report through two-way communication to
freight control center regarding parcel arrival
nuclear material at the destination, at every stopover
and at the place of delivery of packages of nuclear material.

Article 63

(1) The consignor is required to have a transport control center for
mode of transport by road, by train or
through the water with the aim of monitoring the position and status
up-to-date security of nuclear material shipments.
(2) The transport control center is obliged to carry out two-way communication
direction continuously with sender and unit
responder.
(3) The transport control center must be sturdy so that it can
continue to function despite basic design threats.
(4) At the time of delivery, the transport control center
must be equipped with quality equipment and personnel and
reliable to monitor the transport of the shipper,
consignee, the relevant carrier or a
independent government agency.
(5) The transport control center should be installed with a data tracking system
automatic transmission for packages of nuclear materials
brought, so it can record and investigate immediately

unplanned stops or route changes.

(6) The transport control center must update development of the state of nuclear material during transport.

Article 64

(1) The guard as referred to in Article 51 letter g is obliged to armed and trained to escort the transport for protect nuclear materials against sabotage and/or unauthorized transfer.

(2) The guard is obliged to carry out continuous observation against packages of nuclear material or cargo of packaged materials locked nukes, including when transporting materials nuclear stop.

(3) The guard must notify the transport control center regarding the delivery of the parcel.

Article 65

(1) The PIN must ensure the readiness of the responding unit to take action in the event of an emergency as referred to in Article 51 letter h.

(2) The data tracking system as referred to in Article 63 paragraph (5) can be entered the message data given briefly by the driver or guard which can be sent in emergency state.

(3) The guard must be able to communicate verbally with radio, cell phone or satellite system with control center transportation in order to provide detailed information at the time of emergency state.

(4) If there is a threat, the carrier must:

a. increase communication with control center transport, guard and response units for avoid communication failures;

b. communication to guards in case of enemy capture; and

c. immediately give an alarm signal if there is an attack or robbery.

The second part
Group II

Article 66

Article 51, Article 52, Article 53, Article 56, Article 57, Article 58, Article 59, Article 60, Article 61, and Article 62 apply mutatis mutandis for physical protection systems against nuclear materials during transportation for class II nuclear materials.

Article 67

(1) Provisions of physical protection for the mode of transportation by road highway as referred to in Article 54 paragraph (2) letter a:

a. the sender must ensure the suitability of the vehicle, drivers, and other personnel associated with transportation;

b. transport vehicles must be accompanied by guards and equipped with with a safety lock and an immobilization system that can be operated easily and quickly by the driver; and

c. the transport vehicle must be accompanied by at least:

1. a vehicle containing guards;

2. one spare transport vehicle;

3. one vehicle containing loading and unloading equipment;

4. one vehicle containing radiation protection officers along with radiation protective equipment; and

5. one vehicle containing a response unit.

(2) The immobilization system as referred to in paragraph (1) letter b includes, among other things, systems that make vehicles not can be used by unauthorized persons and/or

a device that can stop the supply of fuel,
lock gears and wheels, disable the gas pedal or
turn off the air brake.

Article 68

Provisions of physical protection for the mode of transport by train
fire as referred to in Article 54 paragraph (2) letter b:

a. delivery must be made by freight carriage
separate carriage;

b. delivery must be escorted by guards, response units and
radiation protection officer who was in a special carriage that
closest to the carriage containing nuclear material; and

c. the guard who is on the train must be able
communicate with the engineer in order to anticipate
unscheduled travel times and train stops.

Article 69

(1) The guard as referred to in Article 51 letter g is obliged to
trained to guard the transport to protect nuclear materials
against attempts of sabotage and/or unauthorized transfer.

(2) The guard is obliged to carry out continuous observation
against packages of nuclear material or cargo of packaged materials
locked nukes, including when transporting materials
nuclear stop.

(3) The guard must notify the transport control center
regarding the delivery of the parcel.

Article 70

(1) The PIN must ensure the readiness of the responding unit to
take action in the event of an emergency as
referred to in Article 51 letter h.

(2) Guards must be able to communicate verbally with
radio, cell phone or satellite system with control center
transportation in order to provide detailed information at the time of
emergency state .

(3) If there is a threat, the carrier must:

a. increase communication with control center
transport, guard and response units for
avoid communication failures;

b. communication to guards in case of enemy capture;
and

c. immediately give an alarm signal if there is an attack
or robbery.

Part Three
Group III

Article 71

Article 51, Article 52, Article 53, Article 56, Article 57, Article 58, Article 59, Article 60, Article 61, Article 62, Article 69, and Article 70 are mutatis mutandis applies to physical protection systems against nuclear materials during transportation for class III nuclear materials.

Article 72

(1) Provisions of physical protection for the mode of transportation by road highway as referred to in Article 54 paragraph (2) letter a:

a. the sender must ensure the suitability of the vehicle,
drivers, and other personnel associated with
transportation;

b. transport vehicles must be accompanied by guards and equipped with
with a safety lock and an immobilization system that can be
operated easily and quickly by the driver; and

c. in terms of delivery of nuclear fuel, vehicles
the carrier must be accompanied by at least:

1. a vehicle containing guards;

2. one vehicle containing loading and unloading equipment; and

3. one vehicle containing radiation protection officers

along with radiation protective equipment.

(2) The immobilization system as referred to in paragraph (1) letter b includes, among other things, systems that make vehicles not can be used by unauthorized persons and/or a device that can stop the supply of fuel, lock gears and wheels, disable the gas pedal or turn off the air brake.

Article 73

(1) Physical protection requirements for modes of transport with the train as referred to in Article 54 paragraph (2) letter b:

a. delivery can be made by passenger train, but still in a separate carriage;

b. delivery must be escorted by guards, response units and radiation protection officers who are in a special carriage closest to the carriage containing nuclear material; and

c. the guard who is on the train must be able communicate with the engineer in order to anticipate unscheduled travel times and train stops.

(2) In the case of nuclear fuel, delivery must be made with a freight train in a separate carriage.

CHAPTER VII

PHYSICAL PROTECTION SYSTEM AGAINST SABOTASE INSTALLATION AND NUCLEAR MATERIALS DURING USE AND STORAGE

Article 74

Physical protection measures against sabotage apply to each installations and all classes of nuclear materials

Article 75

(1) PIN is required to apply physical protection against installation sabotage nuclear weapons or sabotage involving nuclear material.

(2) The application of physical protection against sabotage must use:

a. hardware;

b. procedure; and

c. installation design, including layout.

Article 76

(1) Physical protection against sabotage aims to prevent or delay access to vital areas.

(2) To achieve the objectives as referred to in paragraph (1), PIN must be:

a. incorporate aspects of physical protection in installation design nuclear;

b. limit the minimum number of individuals who have access to vital areas; and

c. determine the level of confidence in all workers who are allowed to enter vital areas without bodyguard.

Article 77

(1) PIN must specify nuclear materials, systems and/or equipment additional minimum that must be protected against sabotage.

(2) In determining nuclear materials, systems, and/or equipment as referred to in paragraph (1), the PIN must be considering the results of the evaluation of the consequences of the crime in the basic threat of design.

Article 78

(1) The PIN must limit the number of accesses and access to the area protection and vital areas.

(2) Workers who enter the protected area without bodyguards should be limited to workers whose level belief has been determined.

(3) Guests, repair workers, maintenance or construction workers who will enter the protected area and vital area must escorted by officers authorized to enter without being escorted, and all of them must wear badge.

Article 79

(1) In order to prevent acts of sabotage, guards must check and assess all personnel, packages and/or vehicles which enters the vital area.

(2) A physical protection system must be established in order to be able to prevent coercion by using a motorized vehicle.

(3) Unauthorized vehicles are prohibited from entering the area vital.

(4) The examination as referred to in paragraph (1) may carried out using a nuclear material detector, metal and/or explosives detector.

Article 80

After a period of *shutdown* and/or maintenance, the PIN must be increase vigilance to detect possible security breach, before operating return to nuclear installations.

Article 81

(1) The PIN must make a record of all workers who have access or a key to a nuclear material storage room or area vital.

(2) The arrangement regarding the key as referred to in paragraph (1) must be made against:

a. key inspection and storage, in particular for minimize the possibility of duplication;

b. change of key combination on timeframe; and/or

c. change of key or combination if there is evidence or suspicion that the keys and combinations have been tampered with.

Article 82

Vital areas should be designed:

a. the number of entrances and exits is kept to a minimum;

b. should not be close to public activities;

c. provide intrusion delays; and

d. installed an alarm system if not maintained.

Article 83

(1) Guarding in vital areas must be carried out for 24 (twenty) four hours.

(2) The guard must coordinate with the response unit.

(3) If the guards are not armed, the response unit should:

a. come quickly before the sabotage activities start or are being ongoing; and

b. thwart the sabotage.

CHAPTER VIII

TRANSITIONAL TERMS

Article 84

(1) With the enactment of this Regulation, the Decree of the Head of BAPETEN No. 02-P/Ka-BAPETEN/VI-99 concerning Guidelines for Physical Protection Nuclear Material declared invalid.

(2) For reactors already operating at the time of this regulation issued, the PIN is required to implement Article 16 of the Regulation of the Head of BAPETEN no later than 6 (six) months after the date of set.

CHAPTER IX

CLOSING

Article 85

This Regulation of the Head of BAPETEN comes into force on the set.

Set in Jakarta

on February 26, 2009

HEAD OF THE NUCLEAR ENERGY SUPERVISORY AGENCY,

signed

AS NATIO LASMAN

APPENDIX I

REGULATION OF HEAD OF NUCLEAR ENERGY SUPERVISORY AGENCY

NUMBER 1 YEAR 2009

ABOUT

CONDITIONS OF PHYSICAL PROTECTION SYSTEM

INSTALLATION AND NUCLEAR MATERIALS

MAIN FUNCTIONS AND CHARACTERISTICS OF A PHYSICAL PROTECTION SYSTEM

A. Main Function

The main function of the physical protection system is to be able to deal with the threat of displacement nuclear materials illegally or sabotage the materials and/or installations nuclear are:

1. *ward off (deter)*

Unauthorized transfers or sabotage can be prevented in 2 ways, namely:

a. ward off enemies; or

b. defeat enemies who seek to steal nuclear material or commit sabotage of nuclear installations and materials.

Deterrence efforts are carried out by implementing a physical protection system in such a way that the nuclear installations and materials do not become the enemy's center of attention.

Protective measures to prevent unauthorized transfer or sabotage must consider several factors.

These factors are:

a. basic design threats;

b. the potential impact of activities involving nuclear materials;

c. nuclear installation layout;

d. hardware;

e. guard force at nuclear installations;

f. procedures and training;

g. the strength of the responding unit; and

h. timeliness and responsiveness.

2. Detect

Detection can be done by sensors or direct observation, by workers or guards. In a narrow sense, detection is a physical form.

Example: sensors or personnel who determine something needs to be investigated or assessed at the observed place. Detection must be combined with assessment about what is detected to be useful.

From this combination, it can be distinguished:

a. the ability of sensors to detect animals or people;

b. the ability of the sensor to be affected by the weather so that it generates an alarm wrong; and

c. personnel detection capability by the entrance guard.

Sensors are the most important part of the detection system. Indications of activities that require an assessment obtained by activating the alarm. Main goal detection system is to maximize the possibility of detection by minimizing fault alarms. This can be done with provides continuous detection channel using sensor technology suitable for the environmental conditions and installation area or with using dual sensors and complementary sensors that have functions different technical principles.

3. Assess *(assess)*

The assessment system is an act of processing data from the detection of a sensor and/or visual observation. This scoring system can determine the type, strength, location, time and frequency of disturbances, and determine the number of guards who have to respond. This information is important to prepare response units in an effective and timely manner.

Central alarm station is required to evaluate detection, assess information, and has a communication system between guards and units continuous response. Reliable communication system between stations central alarm, guard, and response units are an important part of physical protection system. The central alarm station must be of solid construction and its location is such that in the event of an attack it can operate continuously all the time.

Assessment usually uses static or dynamic CCTV which includes each sensor sector, which is equipped with a check from the guard. In addition, to determine the cause of the detection alarm, an assessment should be carried out in detail, which includes, among others: what, who, where, when, and how many times in a certain time. These details help determine the amount the guard who must respond and the equipment. This information is very

it is important for the response unit to take appropriate action and effective.

4. *Delay*

Since it is impossible to place guards at all points for protect all types of enemies then a delay is required for provide time for guards to react and ask for help after intruder detected. This delay can be achieved with barriers such as fences, walls and locks. Procrastination should slow down the enemy so guards and response units prepare to stop attack before the enemy reaches its target. The delay must be sufficient to prevent the enemy from completing his mission before the guards and or response units can deter or neutralize the enemy.

5. *Respond*

Guards and/or response units to prevent sabotage are necessary responds more quickly than indirect transfers legitimate. Guards and/or response units can prevent the enemy from move nuclear material from its place even though the enemy has been able to access nuclear material, but to prevent sabotage, guards and or the response unit needs to stop the enemy before the enemy can access nuclear material or vital equipment that can be sabotaged and potentially may pose a radiation hazard.

Therefore, training must be carried out to ensure that guards and/or response units can respond in a timely manner at the early stage of the attack. If installation requires assistance from an external response unit, it needs to be done timeliness analysis to determine the response unit can come timely manner to prevent sabotage. Periodic exercise involving The strength of the external responder can be used to determine the effectiveness of the response and used to develop, correct or modify installation defense strategy including barrier.

Guards and response units must be able to defend to prevent the enemy reach its target. Several factors that support the ability and

resistance of guards and/or response units, including tactical plans, equipment, weapons, and training. Exercise must be done to show effectiveness and improve responsiveness. Barrier placement need to be considered to protect guards and/or response units in blocking attacks.

B. Characteristics

An effective physical protection system must have several characteristics: specifically adapted to the nuclear installation safety system, namely:

a. Layered *defense (defense in depth)*

The enemy in achieving the goal must go through some equipment or sequence of different barriers. Layered defense eliminate dependence on a single barrier or system (which may fail at a critical moment) to face resistance. Existence Multi-layered defense will cause the enemy to:

1) increase uncertainty about physical protection systems (and face possible attack);
2) requires more extensive preparation in advance for attack on nuclear installations (associated with greater risk with preparations before the attack);
3) requires different techniques and equipment to penetrate barrier; and
4) make additional steps.

b. Minimize due to component failure

Minimizing the impact of component failure is a characteristic of the system important physical protection, because a complex system is unlikely to developed and operated without any experience of failure during process takes place. Causes of failure of physical protection components can come from from environmental factors to enemy attacks. Plans for the probability of failure is determined so that the system can operate continuously effectively even in the event of component failure. Spare equipment can take over automatically in a high-level physical protection system that

expected in some cases. For example, the power supply
backup or emergency can function automatically when the power supply
main power failure.

c. Balanced protection

This means that is not the way how the enemy is trying to
accomplish their goals, but how will they effectively be
face elements of the physical protection system. For example, a fabricated building
surrounding a reactor control room may consist of:
1) walls, floors and ceilings are constructed of several types of materials;
2) doors of some kind; hole-in-wall and ceiling fittings; and
3) ventilation, and open air conditioners are protected with various types of trellises.
Complete balance may or may not be necessary. Although
delay intrusion by installing doors, holes and trellises
might be considered smaller than the wall, and would be adequate if
designed as a barrier to provide sufficient arrival time
response unit and successful separation.

d. Graded protection according to the potential radiological impact.

There is no advantage in over-designing, for example
installing expensive metal room doors which will require several
minutes to penetrate with a bang, if the asbestos wall is corrugated
penetrated in minutes with hand tools. wall and
doors shall be prepared according to the degree of protection specified by
basic threat design, response unit capability and time
needed to respond effectively.

HEAD OF THE NUCLEAR ENERGY SUPERVISORY AGENCY,

signed

AS NATIO LASMAN

APPENDIX II

REGULATION OF HEAD OF NUCLEAR ENERGY SUPERVISORY AGENCY

NUMBER 1 YEAR 2009

ABOUT

PHYSICAL PROTECTION SYSTEM GUIDELINES FOR INSTALLATION AND NUCLEAR MATERIALS

FORMAT AND CONTENTS

PHYSICAL PROTECTION PLAN

CHAPTER I INTRODUCTION

CHAPTER II DESIGN BASIC THREATS

CHAPTER III ORGANIZATION AND PERSONNEL OF PHYSICAL PROTECTION SYSTEM

CHAPTER IV CLASSIFICATION OF NUCLEAR MATERIALS

CHAPTER V PROCEDURES RELATED TO PHYSICAL PROTECTION

CHAPTER VI DESIGN AND DISTRIBUTION OF PHYSICAL PROTECTION AREA

CHAPTER VII DETECTION SYSTEM

CHAPTER VIII PHYSICAL BARRIER SYSTEM

CHAPTER IX ACCESS SYSTEM NEEDED

CHAPTER X COMMUNICATION SYSTEM

CHAPTER XI MAINTENANCE AND SURVEILLANCE

CHAPTER XII CONTINGENCY PLAN

CHAPTER XIII DOCUMENTATION

CHAPTER I INTRODUCTION

A. General Information

This section contains:

- full name and address of the installation and PIN name;
- contact address and all telephone and facsimile numbers, including addresses electronic *(email address)* that can be contacted; and
- the purpose or use of the installation, for example for research, radioisotope production, or power generator.

B. General Data of Nuclear Installation

This section contains:

- identification of the installation location, including the geographical location along with the map indicate the location of the site relative to the surrounding community;
- identification of the number of installation units and their layout on the site;
- identification of the size of the installation in square meters;

- identification of the type of installation, eg research reactor, material fabrication installation nuclear fuel, used nuclear fuel storage installations.

CHAPTER II . DESIGN BASIC THREATS

This chapter contains a summary of the basic local design threats which are documents separated.

CHAPTER III. ORGANIZATION AND PERSONNEL OF PHYSICAL PROTECTION SYSTEM

This chapter contains:

- a description of the responsibilities, authorities, and qualifications of the PIN;
- a description of the responsibilities, powers and qualifications of the Guard; and
- a description of the responsibilities of authority, and qualifications of the Appraiser.

PIN responsibilities are:

a. ensure the implementation of a physical protection system against nuclear installations and materials nuclear;

b. ensure the effectiveness of the implementation of physical protection systems by providing priority to security culture;

c. establish mechanisms to protect confidential information related physical protection of nuclear installations and materials;

d. provide training to the personnel of the physical protection system organization;

e. determine the division of areas for physical protection measures;

f. provide the necessary physical protection system equipment;

g. conduct a thorough evaluation either on a regular basis or when changes occur local design basic threats to physical protection systems;

h. prepare contingency plans to anticipate the transfer of nuclear material illegally and sabotage nuclear installations and materials;

i. report to BAPETEN and other relevant agencies if it occurs acts of sabotage, unauthorized transfer of nuclear material, related incidents transport of nuclear material, or any changes in nuclear installations that may affect the application of physical protection against nuclear materials and/or nuclear installations; and

j. coordinate with other agencies related to activities physical protection, such as the police and/or TNI.

PIN authority is:

a. appoint and dismiss personnel of the physical protection system organization;
b. establish management commitment in order to improve culture security; and
c. determine that a physical protection device is no longer suitable for use.

PIN qualification is at least the head of the work unit or equivalent.

The responsibilities of the guard are:

a. carry out physical safeguards of nuclear installations and nuclear materials;
b. carry out periodic and/or occasional patrols;
c. carry out monitoring and assessment;
d. carry out escort of someone who enters the protected area and/or inner area;
e. carry out escorts during the transportation of nuclear materials;
f. implement access control;
g. securing the crime scene; and
h. carry out initial response actions.
i. make activity reports.

The custodian's powers are:

a. inspect and supervise the traffic of people, goods and vehicles in the area protection and/or inner area;
b. arrest and carry out investigations on people who are proven to be able to threaten the security of nuclear installations and materials; and
c. refuse people, goods and vehicles to enter nuclear installations;
d. carry out intelligence activities.

Guards have the following qualifications:

a. basic security;

b. physical protection;

c. radiation protection;

d. intelligence knowledge; and

e. contingency plan

The responsibilities of the assessor are:

a. carry out continuous observation of the detection system;

b. maintain and evaluate CCTV or other physical protection monitoring devices
keep up the good work;

c. report the results of observations to the PIN periodically and/or whenever
time.

The appraiser's authority is:

a. document the identity of the suspect; and

b. recommend that a physical protection monitoring device is no longer feasible
use.

The appraiser has the qualifications to have attended the following training:

a. operation of physical protection monitoring equipment;

b. physical protection; and

c. contingency plan.

CHAPTER IV. CLASSIFICATION OF NUCLEAR MATERIALS

This chapter describes the class of nuclear materials belonging to PIN according to the table classification of nuclear materials in Annex III.

CHAPTER V. PHYSICAL PROTECTION PROCEDURES

This chapter describes the procedures, records and documentation compiled by PIN to ensure the proper implementation of the physical protection system.

CHAPTER VI. DESIGN AND DISTRIBUTION OF PHYSICAL PROTECTION AREA

This chapter describes the design of physical protection systems and the division of areas for implementation of the physical protection system.

CHAPTER VII. DETECTION SYSTEM

This chapter describes the equipment used to detect and assess intrusion, for example sensors, alarms, and CCTV that are integrated with each other.

CHAPTER VIII. PHYSICAL BARRIER SYSTEM

This chapter describes a physical barrier system which usually consists of fences, walls, and doors equipped with special locks.

CHAPTER IX. ACCESS SYSTEM REQUIRED

This chapter describes the access system applied to nuclear installations. Access systems are usually in the form of magnetic cards, biometric systems, use of codes access.

CHAPTER X. COMMUNICATION SYSTEM

This chapter describes the communication system used in the installation nuclear communication. Communication systems are usually in the form of telephones, and *handy talky.*

CHAPTER XI. MAINTENANCE AND SURVEILLANCE

This chapter describes the planning and execution of maintenance including equipment function tests physical protection.

CHAPTER XII. CONTINGENCY PLAN

Contingency plans can be made in a separate document and summarized in Chapter this.

CHAPTER XIII. DOCUMENTATION

This chapter describes how to document all physical protection plan activities.

The documentation must at least contain:

a. physical protection plan maintenance activities during construction, operation, and decommissioning of nuclear installations;

b. Nuclear material utilization activities; and

c. maintenance and storage of documents and records related to the system physical protection.

HEAD OF THE NUCLEAR ENERGY SUPERVISORY AGENCY,

signed

AS NATIO LASMAN

APPENDIX III

REGULATION OF HEAD OF NUCLEAR ENERGY SUPERVISORY AGENCY

NUMBER 1 YEAR 2009

ABOUT

PHYSICAL PROTECTION SYSTEM GUIDELINES FOR INSTALLATION AND NUCLEAR MATERIALS

CLASSIFICATION OF NUCLEAR MATERIALS

Table I. Classification of Nuclear Materials

	Description	group			
		I	II	III	IV
Material 1. Plutonium	Unirradiated or irradiated with exposure 1 gy/hr (100 rad/hr) at a distance of 1 m unwrapped	2 kg 500 g < Pu < 2 kg		15 g < Pu 500 g 1 g< Pu 15 g	
2. Uranium-235	Unirradiated or irradiated with exposure 1 gy/hr (100 rad/hr) at a distance of 1 m unwrapped Uranium enriched 20% U-235 Uranium enriched between 10% - 20% U 235 Uranium is enriched above natural uranium, but less than 10%U-235	5 kg 1 kg	< U-235 < 5 kg 10 kg	15 g < U-235 1 kg 1 kg < U-235 < 10 kg 10 kg	1 g < U-235 15 g 1 g< U-235 1 kg 1 g < U-235 < 10 kg 1 g< U-233 15 g
3. Uranium-233	Unirradiated or irradiated with exposure 1 gy/hr (100 rad/hr) at a distance of 1 m unwrapped	2 kg 500 g < U-233 < 2 kg		15 g < U-233 500 g	
4. U-nature, U depletion, Th and bulk nuclear material waste	Unirradiated or irradiated with exposure 1 gy/hr (100 rad/hr) at a distance of 1 m unwrapped			500 kg	1kg < U/Th < 500 kg

5. Fuel irradiated (natural U, U-depleted, Th or enriched fuel <10 %)	- for transportation	--	Unlimited amount	--	--
	- for storage / use	--	--	Not limited in number	--

HEAD OF THE NUCLEAR ENERGY SUPERVISORY AGENCY,

signed

AS NATIO LASMAN