## GENERAL NOTICES ALGEMENE KENNISGEWINGS

#### NOTICE 739 OF 2013

### **DEPARTMENT OF ENERGY**

### **NUCLEAR ENERGY ACT, 1999**

## INVITATION TO COMMENT ON MEASURES DETERMINED BY THE MINISTER OF ENERGY REGARDING THE FULFILMENT OF RESPONSIBILITIES REFERRED TO IN SECTION 33(1) READ WITH SECTION 33(2) (c) AND (d) OF THE NUCLEAR ENERGY ACT, 1999

The Minister of Energy intends to determine the measures in the Schedule in order to fulfill the responsibilities referred to in section 33(1) read with section 33 (2) (c) and (d) of the Nuclear Energy Act, 1999 (Act 46 of 1999), which measures are hereby published for comment.

All interested persons and organisations are hereby invited to comment in writing on the said measures. Comments must be submitted to the Director: Nuclear Non-Proliferation by—

(a)	Post to:	Department of Energy
		Private Bag X96
		Pretoria,
		0001;

- (b) Hand delivery to: Department of Energy 192 Visagie Street Corner Paul Kruger and Visagie Pretoria 0001; or
- (c) Email to: <u>nonproliferation@energy.gov.za</u>

Kindly provide the name, address, telephone number, fax number and email address of the person or organisation submitting the comments. Comments must be submitted within 30 calendar days from the date of publication of this Notice. Comments received after the closing date may not be considered.

### Schedule

### Definitions

1. Any word or expression to which a meaning has been assigned in the Act,

has the meaning so assigned and, unless the context indicates otherwise -

"ad-hoc inspections" means inspections performed at location or facility normally conducted to verify the information contained in the initial report, or to verify nuclear material before it is exported or upon import;

"**complementary access**" means access provided to the inspectors under the additional protocol at any location or facility in order to assure the absence of undeclared material and activities;

"containment" means the use of seals to provide assurance of the physical integrity of an area or item in order to prevent undetected access to or movement of nuclear material or safeguards-relevant equipment and data;

"facility" means a reactor, critical facility, conversion plant, fabrication plant, reprocessing plant, an isotope separation plant or a separate storage installation; or any location where nuclear material is customarily used in amounts greater than one effective kilogram;

**"IAEA"** means International Atomic Energy Agency, a United Nations organisation that serves as the global focal point for nuclear co-operation;

"inspections" means a set of activities carried out by inspectors at any location, facility or any means of conveyance to verify that nuclear material, restricted material and nuclear related equipment and material are used in peaceful nuclear activities or are adequately accounted for;

"**inspections activities**" means verification activities carried out by inspectors during and in connection with inspections at any location, facility or any means of conveyance;

"**location**" means any installation which is not a facility, where nuclear material is customarily used in amounts of one effective kilogram or less;

"means of conveyance" means any act of conveying, carrying or transporting nuclear material;

"protocol additional to safeguards agreements (additional protocol)" means agreement between the Government of South Africa and the IAEA specifying, the additional authority necessary for the IAEA to fully implement its obligations under comprehensive safeguards agreement pursuant to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) entered into force on 13 September 2002;

"routine inspections" means inspections performed at location or facility on defined periods such as monthly, quarterly, annually;

"**safeguards**" means measures used to verify that civil nuclear material are accounted for and are not diverted to undeclared uses or activities and the correctness and the completeness of the declarations made by facilities about their nuclear material and activities;

"safeguards visit" means the presence of inspectors at any location or facility for purposes other than a safeguards inspection or complementary access;

"special fissionable material (or special fissile material)" means plutonium-239; uranium-233; uranium enriched in the isotopes 235; any material containing one or more of the foregoing material and such fissionable material;

**"special inspection"** means an inspection deemed to be special when it is either additional to the routine inspection effort, or involves access to information or locations in addition to the access for routine and ad hoc inspections, or both;

"**surveillance**" means the use of equipment, usually optical equipment such as video cameras, to confirm information on the movement of nuclear material or detect tampering with containment or safeguards relevant equipment, samples and data;

"the Act" means the Nuclear Energy Act, 1999 (Act 46 of 1999); and

**"unannounced inspections"** means inspections performed at location or facility for which no advance notice is provided.

### Scope

2. These measures set out the scope for implementation and application of the Safeguards Agreement, Additional Protocol and the Act in order to timeously detect and identify nuclear material intended to be used for peaceful nuclear activities and deter the diversion of such nuclear material to the manufacture of nuclear weapons or other nuclear explosive devices or for the use in connection with any other purpose that is unknown.

### Types of inspections and activities for monitoring compliance

3. (1) Any person in possession of, handling, acquiring, using, disposing, processing, enriching or reprocessing, manufacturing or storing, nuclear material and equipment must allow inspectors appointed under section 53 and the designated inspectors of the International Atomic Energy Agency to enter

and carry out, without hindrance, inspections at any nuclear installation or site with a view to monitoring compliance with Chapter III of the Act.

(2) The types of inspections to be carried out by inspectors include, but are not limited to:

- (i) Ad-hoc inspections;
- (ii) routine inspections;
- (iii) special inspections;
- (iv) safeguards visits;
- (v) unannounced inspections; and
- (vi) complementary access.

(3) An inspector carrying out complementary access inspections must give at least two hours advance notice and 24 hours notice for advance notice inspections.

- (4) The inspection activities carried out include but are not limited to:
  - (i) records examination;
  - (ii) visual observation and taking of photographs where necessary;
  - (iii) environmental sampling;
  - (iv) utilization of radiation detection and measurement devices;
  - (v) application of seals and other identifying and tamper-indicating devices;
  - (vi) design information verification; and
  - (vii) any inspection activity deemed necessary.

### Inspector's access to monitor compliance with Act

- 4. An inspector performing inspection or investigation in terms of section 37(1) (a), (b) and (c) of the Act must before entering any land, premises, place or means of conveyance—
  - (a) introduce himself or herself to the responsible official on the land, premises, place or means of conveyance;
  - (b) furnish official notification including proof of identity and inspection schedule;
  - (c) explain the purpose of inspection or investigation;

- (d) provide a brief summary of how the inspection will be conducted;
- (e) request the responsible official to sign the consent form attached in Annexure A for the release of any information which might be required; and
- (f) request the responsible official to be available during the inspection.

### Inspector's powers of search, seizure, etc

- **5.** (1) An inspector acting on the authority of a warrant referred to in section 38(1) (a) and (b) of the Act may—
  - (a) attach any material or equipment; or
  - (b) immediately remove any nuclear material or nuclear related equipment the possession of which he or she believes on reasonable grounds to be unlawful and found on any land, premises, place or means of conveyance.
  - (2) An inspector acting in terms of section 38(3) of the Act may-
    - (a) exercise any of the powers contemplated in section 38 (2) (a) to (f) excluding the powers in terms of section 38 (2) (e) to take a sample of any mineral, material or substance from below the surface or land; however such a sample may be taken from below with the consent of the responsible official by completing and signing the consent form attached in **Annexure A**; or
    - (b) take an inventory of any nuclear material or nuclear related equipment.

# Means of gaining entry into any land, premises, place or means of conveyance.

**6.** (1) A responsible official at the land, premises, place or in charge of means of conveyance must allow an inspector access to the land, premises, place or means of conveyance to monitor compliance.

(2) An inspector acting on the authority of a warrant issued under section 40 of the Act may gain entry into the land, premises, place or means of conveyance.

### Furnishing of information as required by the Additional Protocol

- **7.** (1) Any person in possession of, handling, acquiring, using, disposing, processing, enriching or reprocessing, manufacturing or storing, nuclear material, restricted material and nuclear related equipment and material may at any time be required to furnish information on the following:
  - (a) General description of and information specifying the location of nuclear fuel cycle-related research and development activities not

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involving nuclear material carried out anywhere that are funded, specifically authorised or controlled by, or carried out on behalf of the Government;

- (b) Operational activities of safeguards relevance at facilities and any locations where nuclear material is customarily used;
- (c) General description of each building on each site, including its use and contents whereby a map of the site must form part of the general description;
- (d) Description of the scale of operations for each location engaged in the activities specified in Annex I of the Additional Protocol;
- (e) Location, operational status and the estimated annual production capacity and actual annual production of uranium and thorium mines and concentration plants;
- (f) Import and export of source material which has not reached the composition and purity suitable for fuel fabrication or being isotopically enriched.
- (g) Quantities, uses and location of nuclear material exempted from safeguards;
- (h) The location or further processing of intermediate or high level waste containing plutonium, high enriched uranium or uranium-233 which safeguards have been terminated;
- (i) International and national transfers of specified equipment and nonnuclear material as described in the Government Notice 207 of 2009 issued by the Department of Energy (Declaration of certain substances, materials and equipment as restricted material, source material, special nuclear material and nuclear related equipment and material as indicated in Government Notice No.740, Schedule 1, 2, 3 and 4 respectively);
- (j) General plans for the succeeding ten-year period relevant to the development of the nuclear fuel cycle including planned research and development activities;
- (k) General description of activities and the identity of the person or entity carrying out such activities, at locations identified by the Agency outside a site which might be functionally related to the activities of that site;

(2) A person responsible for a location or facility must upon request, provide amplifications or clarifications of any information that is provided under additional protocol, in so far as it is relevant for the purpose of safeguards.

### **Offences and Penalties**

**8.** Any person or a person responsible for a location or facility, who contravenes or fails to comply with these measures, is guilty of an offence and liable on conviction to a fine or term of imprisonment not exceeding 12 months.

### General

- **9.** Any information or correspondence that must be submitted to the Department with regard to these measures must be submitted to the Director-General for the attention of the Director: Nuclear Non-Proliferation-
  - (a) by registered post to the following postal address:

Department of Energy

Private Bag X96

Pretoria

0001, or

- (b) by hand delivery to the following physical address:
  - Department of Energy 192 Visagie Street

Corner Paul Kruger and Visagie

Pretoria

0001;

### **ANNEXURE A**

### Consent forms in terms of section 38 (4) (b) of the Act and paragraphs 4 and 5(2)

### Form DE 10

## energy

Department: Energy REPUBLIC OF SOUTH AFRICA

## **ANNEXURE A**

## CONSENT FORM GRANTING PERMISSION FOR INSPECTOR/S

I, hereby consent to and authorise the inspector appointed in terms of section 53 of the Nuclear Energy Act, 1999 (Act 46 of 1999) to perform his or her function in terms of section 38 (4) of the Act and paragraphs 4 and 5(2) of the Notice.

The undersigned also consent to the use of photographs or information for the purpose of performing inspection or investigation necessary for monitoring compliance with the provision of the Nuclear Energy Act relating to restricted matter, restricted act or activity.

		a	d	m	m	У	У	У	У
Signature	Rank	Da	Date						

DE 10