

Content

Title : Regulations on the Scope of Inspection and on the Certification of Authorized Inspection Agencies for Nuclear Reactor Facilities [Ch](#)

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Content : Regulations on the Scope of Inspection and on the Certification of Authorized Inspection Agencies for Nuclear Reactor Facilities

Promulgated by Decree Hueih-Her-Tze No. 0930019465 on June 23, 2004

Article 1

These Regulations are enacted pursuant to Paragraph 15.2 of the Nuclear Reactor Facilities Regulation Act.

Article 2

The terminology used in these Regulations shall be respectively defined as follows:

1. Authorized Inspection Agency: The agency certified in accordance with applicable law

and thus authorized to perform inspection activities for the nuclear reactor facilities.

2. Examination: Non-destructive testing performed by qualified personnel to examine material and welds in order to detect flaw(s). Examination normally involves one or more of the following non-destructive testing methods: Visual, Magnetic Particle,

Liquid Penetrant, Radiographic, Ultrasonic and Eddy Current.

3. Inspection: Activities performed to assure that the design, installation, examination and testing do comply with the cognizant requirements.

4. Testing: Specific functional and pressure testing performed by qualified personnel to determine whether or not the structure, system, and component meet the required physical, chemical, environmental and operating conditions.

5. Verification: The use of documentation review, personal interview, on-the-spot observation, etc. to determine whether or not the process of design, installation, examination and testing meet the applicable laws, regulations, codes, and quality assurance requirements.

Article 3

These Regulations apply to the inspection activities on the design, installation, examination and testing during the construction and operation phases of a nuclear reactor facility's safety related structures, systems, and components. These Regulations also apply to the certification and regulation of the inspection agencies.

Article 4

- 2 -

The scope of inspection activities during the construction phase shall

include the following:

1. Verifying licensee's implementation of its quality assurance program.
2. Reviewing certified material test documentation.
3. Witnessing or verifying the construction and installation processes, welding, heat treatment and non-destructive testing activities.
4. Witnessing the final pressure test.
5. Assuring and signing the design specification and construction report.
6. Witnessing selected examinations.
7. Assuring the design report indeed being certified by a relevant licensed professional engineer.
8. Reviewing pressure and vacuum safety relief valves data reports.
9. Reviewing the pre-service inspection plan.
10. Verifying non-destructive testing material and personnel qualification.

#### Article 5

The scope of inspection activities during the operation phase shall include the following:

1. Verifying non-destructive testing material and personnel qualification.
2. Reviewing the in-service inspection and testing plan.
3. Verifying examination and system pressure test activities.
4. Verifying repair and replacement activities and their governing quality assurance program.
5. Reviewing visual examination reports and verifying visual examination results.
6. Verifying pump, valve, and support operational test activities or reviewing the test reports.
7. Assuring and signing licensee operational examination, testing, repair and replacement reports.

#### Article 6

The applicant for the Certificate of Authorized Inspection Agency (hereinafter called the Applicant) shall be one of the following:

1. A government entity or organization.
2. A Company Limited by Shares established in accordance with the Company Act with a minimum of NT 5 million paid in full as share capital.
3. An accredited university, college or research institute.
4. A non-profit juridical person.

#### Article 7

- 3 -

The Authorized Inspection Agency shall have personnel with the following qualifications:

1. One or more Authorized Nuclear Inspector Supervisor and one or more Authorized Nuclear Inspector.
2. One or more AEC reviewed and accepted Radiation Protection Personnel.
3. Two or more AEC reviewed and accepted Level III Nondestructive Testing Personnel.

#### Article 8

The applicant shall complete the application form, and attach the inspection activities procedures, Authorized Nuclear Inspector qualifications, and related evidence of training, and submit them to AEC for certification. A Certificate will be issued when result of the Review is accepted.

The validity of the Certificate mentioned above is 3 years; 3 to 6 months prior to its expiration, the Authorized Inspection Agency may complete the application form, attach above mentioned documents plus records delineating inspection activities performed and

cognizant evidence of training and submit them to AEC to apply for validity extension.

#### Article 9

The rights and duties of the Authorized Inspection Agency for the nuclear reactor facilities are as follows:

1. Accept commission from the licensee, and comply with these Regulations to engage

Authorized Nuclear Inspector Supervisor(s) and Authorized Nuclear Inspector(s) to carry out inspection activities.

2. Establish inspection activities procedures and carry out personnel certification.

#### Article 10

The Authorized Nuclear Inspector Supervisor for the nuclear reactor facilities during the construction phase or operation phase shall have the following qualifications:

1. Level III non-destructive testing qualification reviewed and accepted by AEC.

2. At least one year experience as an Authorized Nuclear Inspector for the nuclear reactor facilities during either the construction or the operation phase.

3. At least 5 years experience in nuclear-facility related quality assurance work.

#### Article 11

The Authorized Nuclear Inspector for the nuclear reactor facilities during the construction phase shall have the following qualifications:

1. Graduate of 2-year or 4-year accredited university or college with a major in engineering or science.

- 4 -

2. Level II non-destructive testing qualification reviewed and accepted by AEC.

3. Training in radiation protection with evidence of training reviewed and accepted by AEC.

4. Completion of at least 60 hours training in nuclear reactor facilities systems.

5. Completion of at least 30 hours training in welding technique and at least 30 hours training in quality assurance.

6. Completion of a total of at least 60 hours training in code requirements for nuclear reactor facilities related design, construction, installation, examination, testing, etc.

7. Completion of a total of at least 100 hours training in code requirements for nuclear reactor facility related material, examination, welding, testing, etc. during operation phase.

8. Completion of at least one year on-the-job training in nuclear reactor facilities construction phase inspection work, or at least one year experience in power boiler or pressure vessel related design, fabrication, installation, examination and testing work.

#### Article 12

The Authorized Nuclear Inspector for the nuclear reactor facilities during the operation phase shall have the following qualifications:

1. The qualifications of Items 1 through 4 of Article 11.

2. Completion of a total of at least 60 hours training in code requirements for operation phase related examination and testing.

3. Completion of a total of at least 100 hours training in code requirements for nuclear reactor facilities related design, construction, installation, examination, testing, welding, etc.

4. Completion of at least one year on-the-job training in operation phase examination and testing inspection work, or at least one year experience in related nuclear reactor design, installation, welding, examination or testing work.

Article 13

The Authorized Inspection Agency shall report to AEC within 15 days of its personnel change involving Authorized Nuclear Inspector Supervisor(s) and/or Authorized Nuclear Inspector(s).

Article 14

AEC will design and issue the application form and certificate form mentioned in these Regulations.

- 5 -

Article 15

These Regulations shall become effective as of the date of promulgation.

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Data Source : Nuclear Safety Commission Laws and Regulations Retrieving System