

2010 AEC-NRC Bilateral Technical Meeting

Current Status of Inspector Training Program

Department of Nuclear Regulation
AEC

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Content

- I. Introduction
- II. Inspector Training and Qualification Program
- III. Current Status of Inspector Qualification
- IV. Conclusion



I. Introduction

In 1983 and 1990 , the Department of Nuclear Regulation (NRD) issued the inspector certificates for qualified persons, according to the Inspector Training and Qualification Regulation for the Quality Assurance of Nuclear Plant. Since then, the qualification program was not performed and hence discontinued for almost 15 years. During those years , more than half of the staff left the Department.

In 2005, the Department of Nuclear Regulation reestablished the qualification program, by referring to the NRC inspector qualification program.

Now, in the reestablished program, the inspectors are divided into 2 levels with only one category, namely junior inspector and senior inspector. Beside, the examiner of nuclear reactor operator is also included in the program.

However, the work scope of NRD inspector and examiner are limited to those that are similar to the reactor operation inspector, reactor engineering inspector, construction inspector, vendor inspector and operator licensing examiner of NRC. The work of health physics inspector, safeguards inspector, emergency preparedness inspector, radwaste inspector are covered by the 4 other Departments of AEC.

II. Inspector Training and Qualification Program

1. Junior Inspector Qualification

- With a Bachelor of Science or Engineering Degree or the equivalent.
- at least a 2-week PWR or BWR or ABWR Nuclear Power Plant System Technology Training Course.
- a 4-day Inspector Basic Training Course for Nuclear Power Plant
- Junior Inspector Individual Study Activities
- Junior Inspector On-the-Job Training Activities

2.Senior Inspector Qualification

- ❑ At least 6-year seniority of Junior Inspector.
- ❑ at least a 4-week PWR or BWR or ABWR Nuclear Power Plant System Technology Training Course.
- ❑ at least a 2-week Simulator Training Course.
- ❑ 4-day Inspector Advanced Training Course for Nuclear Power Plant .
- ❑ 5-day Quality Assurance Training Course.
- ❑ 3-day PRA Application Training Course.
- ❑ Human Relations and Effective Communication Training Course .(about 2 days)
- ❑ Senior Inspector Individual Study Activities.
- ❑ Senior Inspector On-the-Job Training Activities.

3.Examiner of the Nuclear Reactor Operator

- ❑ Must be a Senior Inspector.
- ❑ With a 6-month full scope Nuclear Reactor Operator Training Course (including fundamental reactor principle, system technology and simulator training).
- ❑ Examination Technique Course for Examiner.
- ❑ Individual Study Activities for Examiner.
- ❑ On-the-Job Training Activities for Examiner.

4. Inspectors and examiners should take a 30-hour retraining course every 2 years. This course should include system modification and simulator retraining.
5. The qualified inspectors and examiners should renew their certificates every 6 years.

6. In order to retrain the inspectors and examiners, whose jobs are rotated between different nuclear plants, they should take system and simulator training courses for the new plants.

Between BWRs

1-week system training

Between BWR and ABWR

2-week system training

Between BWR and PWR

4-week system and simulator training

Examiner

4-week system and 2-week simulator training

7. Those who get their equivalent training or experience from institute other than AEC should be reviewed and evaluated in order to replace the requirements in the inspector qualification program. If necessary, an examination will be given to verify the equivalent training or experience.

8. In evaluating the junior inspector to be promoted to senior inspector, a total of at least 150 hrs technical training courses accumulated in 6 years is encouraged in area such as PRA, NDE, Digital I&C, Pump & Valve, Water Chemistry, Civil Eng., Structure & Piping Analysis, Material, Fuel Design, Thermal Hydraulics, ASME Code, Fire Protection,.....

III. Current Status of Inspector Qualification

1. According to the Inspector Training and Qualification Program, NRD started 5 inspector training courses, individual study activities and on-the-job training activities for new staffs from 2005, and the retraining courses for inspectors.
2. Senior staffs, who may not have taken one or more required training courses, individual study activities and on-the-job training activities listed in the Program, should make-up the courses and activities.

3.The practical inspector work seniority , before the Program started, can be accepted as the inspector work seniority, and hence accepted while evaluating the junior inspector to be promoted to senior inspector.

4.In general, a new staff may be evaluated as a qualified inspector, if he has worked in NRD for at least 1 year and satisfies all the training program. Those who have worked NRD at least 8 years and satisfied the training program, may be evaluated as a qualified senior inspector.

5. Training certificates, equivalent training information, or work experience certificate, should be attached as the supplement to the application form, in order to be reviewed by the inspector qualification committee.

6. Inspector Certificates Issued by NRD

Date		Junior Inspector (JI)	Senior Inspector (SI)	Examiner
May	2006	12	14	
September	2006	6	5	
March	2007		3	
November	2007	4		
May	2008		1	5
July	2008	1	1	3
February	2009	1	2	1
February	2010	2		
		26 (12*)	26 (22*)	9

* 4 JIs promoted to SIs

* * 4 JIs and 2 SIs left AEC

* * * 6 JIs and 2 SIs rotated to other Departments

7. In recent years, NRD sent 2 junior inspectors each year to the NRC Technical Training Center (TTC) at Chattanooga for inspector training and taking courses. Especially, in 2007, an examiner candidate was sent to take the Examination Technique course at TTC.

IV. Conclusion

1. The Inspector Training and Qualification Program has been reestablished and performed in the NRD. Currently, there are 12 junior inspectors, 22 senior inspectors, and 9 examiners in NRD. Currently, there are 5 new staff need to go through the inspector training and qualification program to become junior inspector.
2. Junior inspectors and examiners are suggested to be sent to NRC, as previously, for further training in the future.