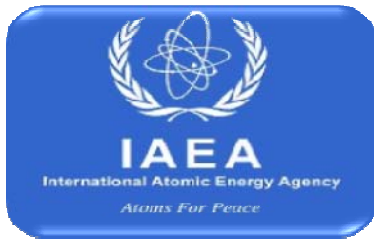


Chapter 9: Maintaining liaisons with international bodies dealing with nuclear regulatory issues

Audit Objective- Whether the regulator has taken adequate measures for maintaining liaison with international bodies dealing with nuclear regulatory issues

9.1 India, IAEA, and international cooperation



IAEA, set up as the world's 'Atoms for Peace' organisation in 1957, has played a central role in international nuclear safety. India has been one of the member States of the agency since 1957. Article 2 of the statute of IAEA provides that it shall seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity, throughout the world.

A Handbook on Nuclear Law by IAEA stresses the need for the users of nuclear techniques and their regulators to maintain close relationships with relevant international organisations and counterparts in other States. It also stipulates that national nuclear energy legislation should make adequate provision for cooperation due to the following factors associated with nuclear activities:

- The potential for trans-boundary impacts, which require Governments to harmonise policies and develop co-operative programmes so as to reduce the risks of damage to their citizens and territories, the global population and indeed, to the planet as a whole.
- The use of nuclear material involves security risks that do not respect national borders.

After the Chernobyl nuclear accident in 1986, the global safety regime underwent vast changes. Worldwide consensus emerged on two issues relating to nuclear safety. Firstly, the need for effective international cooperation and secondly, the need to effectively separate nuclear power development from nuclear safety oversight functions. India became a signatory to different conventions and agreements, which placed obligations on it towards nuclear safety and regulation. India is currently a party to the following conventions:

1986	• CONVENTION ON EARLY NOTIFICATION OF A NUCLEAR ACCIDENT (RATIFIED BY INDIA IN 1988)
1986	• CONVENTION ON ASSISTANCE IN THE CASE OF A NUCLEAR ACCIDENT OR RADIOLOGICAL EMERGENCY (RATIFIED BY INDIA IN 1988)
1979	• CONVENTION ON THE PHYSICAL PROTECTION OF NUCLEAR MATERIAL (RATIFIED BY INDIA IN 2002)
1994	• CONVENTION ON NUCLEAR SAFETY (RATIFIED BY INDIA IN 2005)
2005	INTERNATIONAL CONVENTION FOR SUPPRESSION OF ACTS OF NUCLEAR TERRORISM (RATIFIED BY INDIA IN 2006)

In this chapter, we examine the nature of engagement by AERB with international bodies dealing with nuclear regulatory issues and the benefits that have emerged therefrom.

9.2 AERB and benefits from international cooperation

A large number of international legal instruments have been promulgated to codify the obligations of States in the nuclear field. The terms of those instruments require Governmental compliance, but may limit the discretion of legislators in framing national legislation.

In India, the Atomic Energy Act, 1962 provides that the Central Government may, by notification, make rules for carrying out the purposes of the Act, which also provides for generally promoting co-operation with other countries in the production, use and application of atomic energy as well as in research and investigations in that field. We observed that rules made thereunder such as the Radiation Protection Rules, 1971 revised as RPR 2004 and the Safe Disposal of Radioactive Waste Rules, 1987 etc. did not mention international co-operation or adherence to mutually agreed international guidelines on radiation safety.

We observed that Para 2(vi) and (xiii) of the AERB's Constitution Order provided for adopting radiological and other safety criteria recommended by the International Commission on Radiological Protection, the International Atomic Energy Agency and such other international bodies to suit Indian conditions and thereby evolving major safety policies and maintaining liaison with statutory bodies in the country as well as abroad, regarding safety matters.

We further observed that AERB was associated with the following International agencies/fora related to nuclear and radiation safety:

- International Atomic Energy Agency

- Forum for the Canada Deuterium Uranium Senior Regulators for exchange of information on issues specifically related to safety of Pressurised Heavy Water Reactors.
- United States Nuclear Regulatory Commission.
- Directorate General for Nuclear Safety and Radiation Protection, France.
- Radiation Safety Authority, Russia.

We, however, observed that though AERB maintained liaisons with international nuclear organisations, it was slow in adopting international benchmarks and good practices as has been suitably pointed out in Chapters 2, 3 and 5.

DAE stated (February 2012) that DAE and AERB were involved in IAEA's activities related to enhancement of nuclear and radiation safety. The knowledge and experience brought back by the Indian experts, who participated in the IAEA activities had a significant impact in shaping AERB's regulatory approach and framework. India had also presented its national report under the convention, for peer reviews in 2008 and 2011, wherein member states had accepted the safety record of the Indian NPPs and the efforts and initiatives of AERB, its technical support organisations and the plants for achieving the international benchmarks on safety. AERB stated that it was the first regulatory body to adopt the recommendations of the International Commission of Radiation Protection (ICRP).

DAE has mentioned the impact of the involvement of DAE and AERB with IAEA activities. However, on the key issues of regulatory independence, underpinned by the enactment of comprehensive regulations, the verification of compliance of regulation and enforcement of regulations, which are the key characteristics for an independent nuclear regulator, the AERB has been found to be sharply out of alignment with its international peers.

We have commented earlier on the fact that in contravention of the IAEA Safety Standards, AERB had not yet developed a radiation safety policy even after nearly three decades of being entrusted with this function.

Although AERB maintains liaisons with international nuclear organisations, it has been slow in adopting international benchmarks and good practices in the areas of nuclear and radiation operation.

9.3 IAEA Integrated Regulatory Review Service

IAEA, as a part of its mandate, provides safety review and appraisal services at the request of member States. In the regulatory framework and activities of the regulatory bodies, IAEA has been offering, for many years, several peer review and appraisal services. These include: (a) the International Regulatory Review Team (IRRT) programme that provides advice and assistance to member States to strengthen and enhance the effectiveness of their legal and governmental infrastructure for nuclear safety; (b) the Radiation Safety and Security Infrastructure Appraisal (RaSSIA) service that assesses the effectiveness of the national regulatory infrastructure for radiation safety including the safety and security of radioactive sources; (c) the Transport Safety Appraisal Service (TransSAS) that appraises the implementation of the IAEA's Transport regulations; and (d) the Emergency Preparedness Review (EPREV) service that is conducted to review both preparedness in the case of nuclear accidents and radiological emergencies and the appropriate legislation.

IAEA's safety review and appraisal services, called the Integrated Regulatory Review Service (IRRS) aims at the following:

- to strengthen and enhance the effectiveness of the State's regulatory infrastructure in nuclear, radiation, radioactive waste and transport safety, whilst recognising the ultimate responsibility of each State to ensure the safety of nuclear facilities, protection against ionising radiation, safety and security of radioactive sources, safe management of radioactive waste and safe transport of radioactive material,
- to carry out comparisons against IAEA regulatory safety standards with consideration of regulatory technical and policy issues and
- to provide an opportunity for a balance between technical and policy discussions among senior regulators; sharing of regulatory experiences; harmonisation of regulatory approaches among member States and mutual learning opportunities among regulators.

IAEA offers external peer review services either of a specific regulatory activity or of the performance of a regulatory body as a whole.

We observed that through the IRRS, the IAEA assists its member States in strengthening an effective and sustainable national regulatory infrastructure, thus contributing towards achieving a strong and effective global nuclear safety and security regime. Sixteen countries including Canada, China, France, Pakistan, UK and USA have availed of the opportunity of benefits of IRRS missions as of 2010.

We, however, observed that AERB had not availed of the opportunity of the peer review services of IRRS to get its regulatory framework and effectiveness reviewed so far. AERB had not even conducted any self-assessment regarding its regulatory practices against the IAEA safety standards.

DAE stated (February 2012) that the Government of India had already committed to host an IRRS mission of IAEA for peer review of AERB in the near future. AERB had initiated a self-assessment exercise in 2010 in preparation of the peer review and the self-assessment was presently at an advanced stage of its regulatory framework.

The fact remains that the Committee constituted by AERB in November 2010 for internal assessment of the preparedness of AERB for IRRS had not submitted their report till date. Also, India has fallen behind many countries in availing of the opportunities of peer review of its regulatory framework by IRRS.

AERB has not yet availed of the opportunity of the peer review and appraisal services of IAEA to get its regulatory framework and its effectiveness reviewed by them.

Recommendations

21. AERB may avail of the peer review and appraisal services of IAEA to help make the nuclear regulatory infrastructure effective and sustainable.