

### भारत सरकार / Government of India

## INTEGRATED MANAGEMENT SYSTEM (LEVEL-I)

परमाणु ऊर्जा नियामक परिषद की एकीकृत प्रबंधन प्रणाली

Integrated Management System of Atomic Energy Regulatory Board



परमाणु ऊर्जा नियामक परिषद
ATOMIC ENERGY REGULATORY BOARD

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### **AMENDMENT SHEET**

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	section and para number)	Sign)



### **FOREWORD**

The Integrated Management System (IMS) of AERB provides a set of interrelated or interacting elements (systems) for establishing policies and strategies and thereby enabling the objectives to be achieved in an efficient and effective way. IMS is designed to establish that real consciousness of risks with a focus on the safety priority permeates from the top to bottom in the management hierarchy i.e. leadership for safety is demonstrated at all levels. A single coherent management system is necessary in which all the components and parts of AERB's functions and practices are integrated to enable its mandate to be achieved.

This document not only establishes IMS of AERB, it helps in assessing, sustaining and continuously improving effective leadership and management system in AERB. Also, it provides a systemic approach (i.e. an approach relating to the system as a whole in which the interactions between technical, human and organisational factors are duly considered) which is essential for fostering a strong safety culture.

Consequent to the IAEA's IRRS Mission in 2015, AERB had initiated a programme to strengthen its processes and concurrently develop and integrate all the internal procedures for its coherent functioning. Necessary changes in organisational structure were also made to address clear demarcation in role and responsibilities for important functions like regulatory inspection, public communication and emergency preparedness and independence in decision making. This step facilitated better understanding of interfaces of regulatory processes and thereby helped in development of formal IMS fulfilling all the applicable requirements from IAEA's GSR Part-2. The IMS was initially adopted by AERB in May 2018 with approval of the Board.

The experience gained with the implementation of IMS for over two years and the feedback received indicated the need for certain modification, updation and rearrangements in IMS Level-1 document for more coherent operation of various processes. The revision addresses (1) rearrangement of organisational policies and aligning elements of organisational strategy with them; (2) Including process governing policies which come under purview of the Board; (3) Spelling out strategies necessary for supporting regulatory processes; (4) Incorporating a chapter on systematic approach for decision making; and (5) Providing more clarity on (a) audit of IMS implementation and (b) Self-assessment of individual processes. The delegation of decision making authority to the Secretariat and the multi-tier review levels are in accordance with the past decisions of the Board and in line with AERB's safety documents on consenting process for nuclear and radiation facilities.

Further, with the availability of International Atomic Energy Agency (IAEA) documents on "Organisation, Management and Staffing of the Regulatory Body for Safety, GSG-12" and "Functions and Processes of the Regulatory Body for Safety, GSG-13", AERB undertook a comparative study of its IMS with those IAEA documents. The Level-1 document of IMS is now revised addressing the gap areas identified by this mapping and also the feedback received.

This document will help in promoting a consistent approach to fulfil AERB's regulatory mandate accomplishing the mission, vision and goals. This revised IMS Level-1 document with due approval of the Board is issued herewith for regular use.

(G. Nageswara Rao) Chairman, AERB

Regulatory & Que de Mumi



#### LIST OF ABBREVIATIONS

AERB Atomic Energy Regulatory Board

AEC Atomic Energy Commission

ACNRS Advisory Committee on Nuclear and Radiation Safety

ACAPC Advisory Committee for Awareness and Public Communication

ACPSR Advisory Committee for Project Safety Review

ACS Advisory Committee on Security

AO-III Administrative Officer-III
APO Assistant Personnel Officer

**ADOL** Assistant Director for Official Language

BARC Bhabha Atomic Research Centre CAC's Chairman's Advisory Committee

CAG Comptroller and Auditor General of India

CAO Chief Administrative Officer

CCS (CCA) Rules The Central Civil Services (Conduct) Rules, 1964

CPIO Central Public Information Officer

**CSRP** Committee on Safety Research Programme

**CVO** Central Vigilance Officer

**CWS** Committee to Ensure Workplace Safety

DAE Department of Atomic Energy
DCA Deputy Controller of Account

DGFT Directorate General of Foreign Trade
DGMS Directorate General of Mines Safety

**DoFP** Delegation of Financial Powers

DRA&C Directorate of Regulatory Affairs and Communications
DRP&E Directorate of Radiation Protection & Environment

DRI Directorate of Regulatory Inspection
DRP Division of Radiological Protection

EAL Emergency Action Level
EC Executive Committee
Executive Director

**EPR** Emergency Preparedness and Response

FPC First Pour of Concrete
FAC First Approach to Criticality
FSAR Final Safety Analysis Report

FCF Fuel Cycle Facility

GIC Gamma Irradiation Chamber
GFR General Financial Rules

**GRAPF** Gamma Radiation Processing Facility

**GSG** General Safety Guideline

**HOD** Head of Division

IAEA International Atomic Energy Agency

ICRP International Commission on Radiological Protection

IMS Integrated Management System



ISI In-Service Inspection

L-I IMS Level-II
L-II IMS Level-III
IMS Level-III

**MoEF&CC** Ministry of Environment, Forest and Climate Change

MoU Memorandum of Understanding

NEA Nuclear Energy Agency
NOC No Objection Certificate

NF Nuclear Facility

NFRG Nuclear Facilities Regulations Group
NPSD Nuclear Projects Safety Division
NSAD Nuclear Safety Analysis Division

NSARG Nuclear Safety Analysis and Research Group

OIC Officer-In-Charge

OPSD Operating Plants Safety Division
PAC Public Accounts Committee
PMO Prime Minister's Office
QMS Quality Management System

**R&DD** Resources and Documentation Division

RegDocRegulatory DocumentRFRadiation Facility

**RP&AD** Radiological Physics & Advisory Division

**RPP** Radiation Protection Procedure

RHPs Regulatory Hold Points
RRCs Regional Regulatory Centres
RSO Radiological Safety Officer
RSD Radiological Safety Division

RTI Right to Information

SAMG Severe Accident Management Guideline

SARCAR Safety Review Committee for Applications of Radiation

SARCOP Safety Review Committee for Operating Plants
SCRD Standing Committee for Regdoc Development

SRC Safety Review Committee
SRI Safety Research Institute

SARIS Self-Assessment of Regulatory Infrastructure for Safety

Tech Specs Technical Specifications for Operation

**TSOs** Technical Support Organisations



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Chapter-1

### **Introduction to Integrated Management System**

### **Background**

- 1.1 Atomic Energy Regulatory Board (AERB) is mandated to enforce radiation safety regulations throughout the country and also industrial safety in the units of DAE. Integrated Management System (IMS) integrates all of an organisation's processes into one complete framework, enabling the organisation to work as a single unit with unified objectives. As a regulatory body, AERB carries out various regulatory and safety functions such as specifying regulatory requirements and providing guidance to meet these requirements, granting licences to facilities and activities, carrying out regulatory oversight through periodic reviews and inspections, monitoring compliance, taking enforcement actions as necessary, and confirming satisfactory states of emergency preparedness. In addition, AERB sponsors safety research and interacts with relevant agencies at national and international level, disseminates information to keep public informed on relevant safety issues and carries out safety promotion activities. The IMS of AERB brings all the multiple, interrelated and interacting processes required for the above functions into single framework, enabling AERB to fulfill its mission, vision and mandate.
- 1.2 AERB deals with diversified facilities and activities with varying degree of complexities, safety significance and associated risks. There is a possibility that some regulatory areas receive inadequate or too much regulatory attention. The detailed out IMS calls for grading the management system to allow the organisation to deploy resources according to the type and required extent of controls in a manner that is commensurate with the significance, complexity and risks associated with the regulated facilities and activities. Thus the available resources with the AERB are put to optimal use with focus on safety priority.
- 1.3 IMS is designed to establish that real consciousness of risks with a focus on the safety priority permeates from the top to bottom in the management hierarchy i.e. leadership for safety is demonstrated at all levels. IMS ensures that all staff of AERB take responsibility for safety, hold themselves personally accountable and demonstrate strong values and ethics which is facilitated through questioning attitude and open communication. They feel free to raise safety concerns without fear of retaliation, intimidation, harassment, or discrimination and uphold the stated principles of ethics of AERB and ensure that safety culture prevails during execution of all of regulatory processes.
- In designing the management system, the overarching requirement is to (i) frame organisational policies to fulfill the mission, vision and mandate of the organisation, (ii) determine policies governing the regulatory processes and (iii) set up an organisation structure with delegation of responsibilities and decision making authorities. The responsibility of providing the overall direction for functioning of the AERB lies with the Board of AERB. To implement the regulatory policies, detailed strategies and plans are developed for each regulatory process including the process interfaces and assessment methodologies. To support the regulatory processes, necessary management policies and strategies and administrative guidance are developed by Chairman, AERB who heads the secretariat. The responsibility for implementation of these strategies, plans and guidance lies with Executive Director, AERB who executes these through various Groups, Directorates and Divisions. For this purpose, detailed instructional material consisting of procedures, work-plans, checklists, etc are developed by the respective Heads of Directorates/Divisions.





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1.5 AERB's management system is implemented through a series of easily understandable documents arranged in three levels of hierarchy based on modular approach considering the distributed responsibility and ease in implementability. In order of the significance and role of the documents in shaping the management system, the levels are as follows:

- i. IMS L-I: It covers Mission, Vision, Mandate, overall organisational policies and strategy, regulatory processes including governing policies, strategies supporting regulatory processes, management processes, matters related to office administration, organisational structure and delegation of responsibilities and authorities.
- ii. IMS L-II: In order to meet the expectations laid down in IMS-level I, level-II documents are framed as follows:
  - a) Level-IIA: provides strategies, plans and interfaces for core and associated regulatory processes; policies, strategies and plan for management processes
  - b) Level-IIB: provides strategies, protocol and guidelines in support of regulatory processes.
  - c) Level-IIC: provides procedures for office administration and related activities common to entire organisation.
- iii. IMS L-III: It covers procedures, work-plans, checklists, etc. for implementation of processes as identified in respective L-II documents.

IMS documents are managed and controlled in specified manner so that they are readily available at the point of use and also future reference.

### **Objective**

- 1.6 The objective of IMS of AERB is to integrate all the processes with primary focus on leadership for safety at all levels in the organisation by adopting a graded approach commensurate with the risk, complexity and associated factors and thus permitting AERB to deploy resources optimally in areas requiring regulatory attention. IMS further requires AERB to periodically monitor and evaluate its processes for continual improvement in their effectiveness and efficiency.
- 1.7 The objective of this document is to describe IMS in AERB to support in establishing, sustaining and continuously improving leadership and management for safety. It provides a set of interrelated or interacting elements (system) for establishing policies and strategies and thereby enabling the objectives to be achieved in an efficient and effective way. The enveloping objective is to foster and sustain a strong safety culture in AERB. While fulfilling all the objectives it also ensures that regulatory processes are conducted in a way that it will not diminish the prime responsibility for Safety of the licensee.

#### Scope

- 1.8 This document covers the organisational and management aspects of AERB that are necessary for regulation of radiation safety in the country (including those aspects of security which have bearing on safety) and industrial safety in units of DAE. In doing so, it integrates not only the technical aspects but also the cultural, organisational and human aspects for enhanced regulatory effectiveness.
- 1.9 The document (IMS Level-I) describes the management system structure of AERB to meet its assigned mandate. It outlines the (i) management commitments, (ii) organisational policies and strategy, (iii)





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organisational structure with functional responsibilities and accountabilities, (iv) governing policies and management expectations from various processes, and (v) describes the system of assessment and improvement. As part of overall IMS, separate Level-II and Level-III documents are framed to meet the expectations laid down in this Level-I document.

#### **Structure**

- The Level-I document which is governing document for establishing IMS in AERB contains eight 1.10 chapters. Chapter One is on Introduction that provides an overview of the background on implementation of Integrated Management System, the objective, the scope and the structure of the document. The Chapter Two covers the mission, vision of AERB and describes the core values. The overarching policies which governs the organisation's functioning are also specified in this chapter. Chapter Three elaborates the functional mandate of AERB (both regulatory as well as administrative) as derived from various legal enactments and Government orders and instructions and the strategies adopted at an organisational level to discharge the functional mandate. Chapter Four covers the organisational structure of AERB including the interface between the Board and the Secretariat and the distribution of roles and responsibilities in the secretariat. Chapter Five provides the details of the core and associated regulatory processes along with their respective policy elements and management expectations of these processes based on which the detailed processes are to be planned and executed. It also outlines the management expectations of the crosscutting management processes; and identifies strategies to be developed to support regulatory processes and matters related to office administration. Chapter Six addresses the overall decision making (both regulatory as well as management processes related) covering the philosophy and principles behind delegation of authority to various levels in the secretariat, the recording of decisions and communication of decisions. Chapter Seven describes the various levels of IMS documents and their control. Chapter Eight summarises the steps involved in process monitoring and continual improvement which includes self-assessment, review and corrective actions
- 1.11 The document concludes with two appendices. Appendix is used for elaboration and is considered a part of the document and placed after the last section in the main body of the document. Appendix-A provides the tabulated depiction of regulatory decision making by the Board and its delegation to Secretariat of AERB. Appendix-B provides the interaction between the authorities and the various tiers of Committees for decision making.
- 1.12 There are four annexures attached to this document. Annexures provide information that might be helpful to the user and are placed after 'Appendices' as they do not form a part of the document. Annexure-I summarizes the basis of legal authority of AERB for carrying out regulatory and citizen centric administration mandate; Annexure-II provides distribution of roles, responsibilities and accountabilities to various officers in the secretariat, Annexure-III provides the typical list for IMS L-II and L-III documents and Annexure-IV describes the historical account of implementation of IMS in AERB.

### Note:

- a) The term 'Licensee' is used in this document to indicate the person or organisation responsible for a licensed facility or a licensed activity who has been granted written licence by AERB to conduct specified activities.
- b) Stakeholders for AERB mean all those who have a specific concern in the activities and performance of AERB or who might be adversely affected by the decisions of AERB and include



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- i) The general public including those who live near nuclear facilities and those who benefit from the use of ionizing radiation or nuclear energy
- *ii)* Interested Parties
  - Organisations and individuals who have legitimate interests in the impacts (including economic) of establishing and operating a nuclear or radiation facility such as owners, manufacturer, designer, operators, partners, customers and other supply chain entities.
  - Occupational workers who work in nuclear and radiation facilities and the trade unions;
  - Elected representatives and the authorities those who govern at the national, regional or local level;
  - Professional and academic institutions
  - Media who convey information to others, and the nongovernmental organisations that represent the views of many individuals.
- c) The term 'safety' is used in this document to mean the protection of people and the environment against radiation risks, and the safety of facilities and activities that give rise to radiation risks. Safety as used here includes the safety of nuclear installations, radiation safety, the safety of radioactive waste management and safety in the transport of radioactive material; it also includes non-radiation-related aspects of safety like industrial safety as applicable. Please refer AERB Glossary for further definitions.
- d) Unless there is anything repugnant in the subject or context-
  - words importing the masculine gender shall be taken to include females; and
  - words in the singular shall include the plural, and vice versa.





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**Chapter-2** 

### Mission, Vision and Organisational Policies

Mission

2.1 To ensure the use of ionizing radiation and nuclear energy in India does not cause undue risk to the health of people and the environment.

Vision

2.2 To be a knowledge organisation of high international standards with state of the art scientific capabilities and to maintain high level of professionalism, credibility, transparency and accountability in the domain of its regulatory responsibilities.

Organisational Policies

2.3 In order to achieve the Mission and Vision, the Organisational policies are framed as clearly written statements to help employees to understand the organisation's views and values on specific areas. These overarching policies provide general direction for functioning of AERB.

The important organisational policies of AERB are as follows:

- (1) Keep safety of people and environment as its primary focus;
- (2) Ensure independence, consistency and fairness in regulatory decision making and be open and transparent for efficient functioning;
- (3) Practice inclusive, participative regulation with emphasis on positively influencing the licensee for compliance;
- (4) Regulatory activities shall not diminish licensees' prime responsibility for safety;
- (5) Apply legal and regulatory standards equitably and impartially;
- (6) Conduct state-of-art safety analysis and research for independent verification in support of decision making;
- (7) Apply graded approach to ensure effective and efficient utilization of resources;
- (8) Maintain technical competence at its core along with other regulatory and associated competencies;
- (9) Promote the highest level of safety and security consciousness;
- (10)Develop and maintain strong safety culture within AERB and influence licensees to develop and maintain strong safety culture in their organisations.





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**Core Values** 

2.4 AERB has adopted a formal code of ethics comprising of fundamental principles and core values. This code is followed by all employees in discharge of their duties in accordance with the mission of AERB. In adherence to the core values encompassing Duty, Competence, Objectivity, Integrity, Honesty, Courage, Fairness and Respect, as stated in code of ethics, the AERB professionals commit to make a positive contribution to ensure and continually enhance safety in the use of nuclear energy and application of ionizing radiations for societal benefits in India. The personal attributes which guide the functioning of AERB's staff and employees are as follows:

- (1) Maintain high degree of honesty and integrity;
- (2) Have competence to make clear, balanced and unbiased decisions, and is accountable for those decisions;
- (3) Encourage a continuous self-improvement and learning culture;
- (4) Take personal responsibility for safety, hold themselves personally accountable and demonstrate strong values and ethics. Their personal accountabilities shall be clear;
- (5) Take actions in objective manner and regulatory decision making to be based on factual information and sound judgment without being influenced by competing and conflicting interest;
- (6) Have courage to make difficult decisions, if necessary, using all relevant facts and information to promote wise and fair decisions;
- (7) Being respectful to all, peers, subordinates and licensees, and treat all individuals with dignity and courtesy.





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**Chapter-3** 

### **Functional Mandate and Organisational Strategy**

- 3.1 Atomic Energy Regulatory Board (AERB) was constituted by Statutory Order S.O.4772 dated November 15, 1983, notified in the gazette of Indian December 31, 1983 to carry out certain regulatory and safety functions under Section 16, 17 and 23 of the Atomic Energy Act, 1962.
- 3.2 Prior to 1983, the Safety Review Committee of DAE (DAE-SRC) was entrusted with the responsibility of regulatory oversight of the units of DAE while the Division of Radiological Protection (DRP) of BARC was looking after safety regulation of non-DAE units engaged in radiation applications. These bodies continued to assist AERB in its functioning after its formation.
- 3.3 In 1987, a Committee under Chairmanship of Shri V.N.Meckoni was constituted by Chairman, Atomic Energy Commission vide Officer Order No.18/1/9/85-ER/823 dated 21.3.1987 to review the functions and responsibilities of the AERB vis-à-vis DAE-SRC, DRP and Health Physics Division of BARC and to recommend measures for furthering the effectiveness of the regulatory functions of AERB. Consequent to the acceptance of Meckoni's Committee report, in partial modification of office order constituting AERB, made DAE SRC to report to Chairman, AERB. With this, SRC was subsumed in AERB and the functions of SRC also became a part and parcel of AERB.
- 3.4 Prior to 2001, most of the regulatory activities with respect to safety assessment and issuance of authorizations to the users of radioactive material were carried out by RPA&D (erstwhile DRP), BARC. From 2001, the regulatory activities were transferred to AERB in accordance to the mutually agreed working arrangement. Based on progressive meetings between BARC and AERB, it was finally agreed upon that
  - a) AERB shall handle all correspondences with applicant regarding licensing
  - AERB would seek assistance from RP&AD and other agencies for safety assessment of the sources, equipment or shielding adequacy of installations and lay out plan approvals or for handling emergencies, wherever necessary
  - c) RP&AD, BARC will continue to conduct training courses in coordination with AERB.

Thus, interactions between RP&AD and AERB over the years have converged to establish a single window communication among users, with regulatory functions and enforcement function entrusted to AERB.

- 3.5 In June 2000, the regulation of BARC facilities were exempted from the scope of AERB vide an executive order. Further S.O 2865 dated October 26, 2004 mandated that regulatory and safety functions of all projects/facilities/plants based on technologies developed by BARC, which would be eventually operated by organisations other than BARC, shall be carried out by AERB from design stage onwards on the basis of specific requests from Director, BARC from time to time.
- 3.6 From October 2005, it was decided that in view of duality of enforcement of industrial safety in mines of DAE by AERB and Directorate General of Mines Safety (DGMS), it was decided that industrial safety in mines will no longer be regulated by AERB. Likewise, road accidents in industry premises and DAE townships were also kept outside the purview of AERB.



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- 3.7 From October 2009, AERB started overseeing those aspects of security which have a bearing on safety under its regulatory regime.
- 3.8 The Civil Liability for Nuclear Damage Act 2010 mandated AERB to notify nuclear incidents depending on the gravity of the threat and risk involved.
- 3.9 AERB has the powers of the Competent Authority to enforce rules and regulations framed under the Atomic Energy Act, 1962 for radiation safety in the country and authority to administer the provisions of the Factories Act, 1948 for industrial safety in the units under the control of DAE.
- 3.10 Chairman, AERB has been designated as the competent authority under the following rules promulgated under the Atomic Energy Act, 1962.
  - i) Atomic Energy (Radiation Protection) Rules, 2004
  - ii) Atomic Energy (Safe Disposal of Radioactive Wastes) Rules, 1987
  - iii) Atomic Energy (Working of Mines, Minerals and Handling of Prescribed Substance) Rules, 1984
  - iv) Atomic Energy (Factories) Rules, 1996

The executive functions of AERB secretariat are vested in the Chairman.

- 3.11 Besides, AERB has also been given authority under the Environment Protection Act, 1986, Manufacture, Import Storage of Hazardous Chemical Rules, 1989 and Atomic Minerals Concession Rules, 2016. Please see Annexure-I for further details on legal mandate.
- 3.12 Based on the above chronological developments, the functional mandate of AERB progressively evolved over the years and the consolidated functional mandate of AERB is summarized in Table-1.

Note: All Acts, Rules and Notifications referred in this document are available on AERB website under menu Acts & Regulations





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Table-1: Consolidated Functional Mandate of AERB

Areas	Mandate
	Developing Regulations
Development of Regulations (Regdocs, Safety Directives, etc)	Develop Safety Policies, Safety Codes/ Standards and supporting documents -in nuclear, radiation and industrial safety areas for facilities and activities under its purview.  Prescribe limits of radiation exposure to occupational workers and members of the
	public, specify dose constraints and acceptable limits of environmental releases of radioactive substances
	Licensing
Licensing of Radioactive Substances/Equipm ent Containing radioactive Substances	Issue NOC from safety considerations for import and export of radioactive substances/ equipment containing radioactive Substances  Exercise regulatory control over manufacture, possession and use of radioactive substances/ equipment containing radioactive Substances from Safety and Security considerations  Grant Type approval of the design of the sealed radioactive Substances/Equipment Containing radioactive Substances from radiological safety considerations for the purpose of manufacture and supply  Approval of Package Design and Grant of Shipment approval
	Grant authorisation for transfer/disposal from safety considerations
Licensing of Radiation Generating Equipment	Issue NOC from safety considerations for import and export of radiation generating equipment  Exercise regulatory control over operation of radiation generating equipment from Safety considerations
	Grant Type approval of the design of the equipment from radiological safety considerations for the purpose of manufacture and supply
Licensing of Plants/facilities	Review and Assessment from safety (radiation safety and industrial safety in DAE units) and those aspects of security having bearing on safety during siting, construction, commissioning, operation and decommissioning of units under its purview including modifications in design/operation involving changes in the technical specification  Grant of licenses/consents during various stages of the life time of the plant and renewal of operating license after satisfying the compliance with the established
	regulations
Licensing of Personnel	-Review the training program, qualifications and licensing policies for personnel of nuclear and radiation facilities and prescribe the syllabi for training of personnel in safety aspects at all levels Approve designation of personnel as required under various Acts /Rules/Regulations (RSO, operating personnel and appointment of competent persons as per Factories Rules, etc.)





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Regulatory Oversight									
(to ensure compliance through a system of safety review and assessment, licensing, regulatory inspection									
	and enforcement)								
Operational Safety	Review of safety performance of plants/facilities, events, impact on workers and								
Review and	environment								
Assessment									
Inspection	Carry out regulatory inspection from safety and security aspects or to carry out investigation following a safety related event								
Enforcement	Issue directives, order Suspension of operation or cancel or revoke the issued licence								
Emergency Plan	Review Off site Emergency Preparedness Plans and approve on Site Emergency preparedness plans of nuclear and radiation facility								
Operating and	Review and analyse operating and regulatory experience feedback obtained from								
Regulatory	national and international sources (ICRP, IAEA, NEA, bilateral arrangements etc)								
experience									
Feedback									
	Associated Functions								
Safety Promotion	Undertake safety promotional activities for enhancing and encouraging safety								
	consciousness among licensee organisation								
Promoting	Keep public and other stakeholders informed on major issues of safety significance								
Transparency/Open	engage /consult with stakeholders, as appropriate, during conduct of regulatory								
ness and	activities								
Accountability	Collecting the views and feedback of stakeholders and arrange prompt grievance redressal								
Promote Safety	Promote research and development efforts in the areas of safety								
Research									
International and	Maintain liaison with statutory bodies and other agencies in the country as well as								
National	abroad regarding safety matters.								
Cooperation									
Notifying nuclear	Review of Extraordinary Nuclear Events, notify and cause wide publicity of "nuclear								
incident	incident" under Civil Liability for Nuclear Damage Act, 2010								
Appoint persons/	Appoint persons/ Recognise Agencies for carrying out safety functions as entrusted								
Recognise Agencies	to them								

- 3.13 AERB is also mandated to honour the national and international obligations and maintain high level of transparency and accountability in its functioning by fulfilling its citizen centric administration mandate. For detailed legal mandate, please refer Annexure-I.
- 3.14 In fulfilling the above mandate, AERB interacts with DAE for obtaining administrative support in regard to its budget, account matters and parliamentary work. AERB also advises AEC/DAE on matters related to safety referred to it.





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### Organisational Strategy

3.15 The organisational strategy is developed around AERB's organisational polices, core values, and functional mandate. Organisational Strategy is aimed to establish an IMS by effective integration of all regulatory and management processes and coordination among interdependent processes. The Strategy also includes the basis for implementation, assessment and continual improvement of IMS as follows:

- 1. Developing an organisational structure commensurate with the IMS;
- 2. Ensuring strong organisational capability by embedding safety culture and leadership in AERB staff;
- 3. Building and maintaining staff competence and providing them with adequate resource for performing their functions and discharge their responsibilities;
- 4. Conducting and promoting state of art safety research in line with international benchmarks for use in development of regulations and regulatory decision making;
- 5. Establishing means of management and preservation of the knowledge of the organisation like periodic trainings, special trainings, seminars, etc.;
- 6. Using graded approach, based on risk associated and complexity of the facility or activity being regulated, as applicable, while discharging its mandate which include resources utilization commensurate with the associated risks;
- 7. Adopting a balanced approach between prescriptive, performance based and process based regulation;
- 8. Implementing regulatory processes in a manner that does not compromise AERB's effective independence;
- Providing necessary checks and balances, including opportunity of being heard and recording of bases, to ensure that its decisions and regulations are timely, clear, uniform and unambiguous and that all decisions are taken in a transparent manner and are based on sound, scientific and technical knowledge;
- 10. Ensuring that its staff remain focused on performing their duties in relation to safety and are accountable for the same;
- 11. Using effective means to communicate to and/or have consultation with stakeholders, as appropriate regarding its regulatory decisions and about any possible radiation risks associated with facilities and activities;
- 12. Provide all members of society an easy access to relevant information so that they can reach an informed opinion on regulatory issues;
- 13. Providing mechanisms for collection and use of feedbacks obtained from various regulatory processes for further improvements.





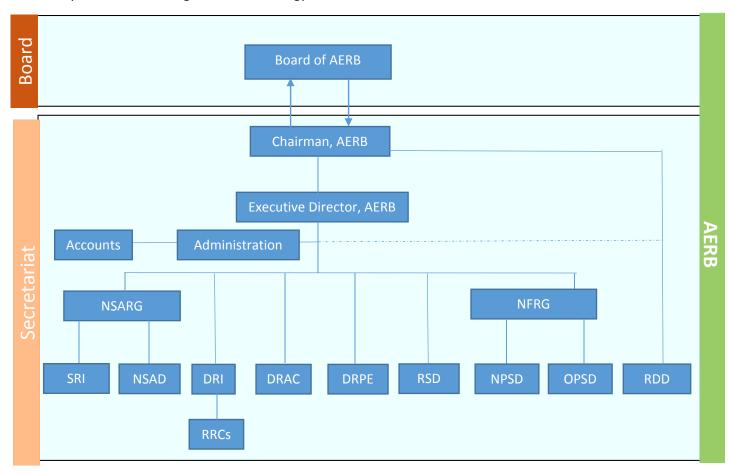
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**Chapter-4** 

### **Organisational Structure and Responsibilities**

4.1 The organisational structure and responsibilities are based on the original mandate of AERB stated in S.O.4772 and subsequent evolutions as referred in Chapter-3. The current evolutionary steps are aimed to further the capabilities and experience gained by its staff over years so that AERB as an organisation continues to perform regulatory activities effectively and efficiently for the expanding nuclear power programme and the radiation facilities in the country, which are already outlined in the organisational strategy.



4.2 The Board is assisted in execution of its mandate by Secretariat. Term 'AERB' refers to organisation as a whole (Board + Secretariat) while term 'Board' refers specifically to the Board of AERB. The Secretariat of AERB has its Offices at Head Quarters, Mumbai, Regional Regulatory Centres (RRCs) at Chennai, Kolkata and New Delhi and a Safety Research Institute at Kalpakkam. He jobs and responsibilities of the Secretariat are distributed among various Groups/Directorates and supported by Accounts Division (w.r.t. financial matters) and Administration Division (w.r.t. establishment and office administration matters). All the Groups, Divisions and Directorates, until and unless specified, function under the general guidance and supervision of Executive Director, AERB, who in turn reports to Chairman, AERB. The responsibilities of various Directorates/Divisions of Secretariat and their internal organisational framework is provided in the respective L-III documents.





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#### **BOARD OF AERB**

COMPOSITION

4.3 The Board comprises of six members of which two are whole time members including Chairman. The other whole time member is the Executive Director\* of the Secretariat who is an ex-officio member of the Board. The other four members are eminent experts from various disciplines relevant to the mandate of the Board. The Board is assisted by a non-member Secretary who is an employee of the Secretariat.

**FUNCTIONS** 

4.4 The functions of the Board are provided in S.O. 4772. The Board approves the policies governing nuclear and radiation safety in the country and industrial safety in units of DAE under its purview. The Board approves the management system and in this regard, oversees that the organisation while conducting its activities adheres to the stated vision, mission and specified mandate of AERB in an independent unbiased manner. The Board reviews the appeals against the regulatory decisions of the Secretariat.

**DELEGATION** 

4.5 While the Board oversees the governance of mandated responsibilities, for administrative convenience, the Board delegates some of its responsibilities to the Chairman, AERB and Executive Director, for which the Board apprises itself periodically. Chairman, AERB, who is vested with the executive functions of the Secretariat, in turn delegates his responsibilities to other officers in the secretariat as per the strategy on graded approach. For the regulatory decision making responsibilities retained by the Board and those delegated to Secretariat, please refer Appendix-A.

TRANSACTION OF BUSINESS

4.6 Each Board member has equal authority and responsibility in all Board decisions and they have equal access to all information pertaining to Board matters. The Board may constitute advisory panel/body as necessary. Transaction of business of the Board is adopted by the Board through a resolution.

The Secretariat interacts with the Board periodically (normally once in a quarter) and also places the proposals which require approval of the Board. Board oversees the safety issues and keeps itself informed of the activities performed by the Secretariat

The Secretary provides logistic and secretarial services to support the Board and serves as the Contact Person for affairs of the Board.

Meetings of the Board, hearing of appeals, entitlements of the Members, constitution of Advisory Panels/bodies etc. are conducted as per approved procedures.

<sup>\*1</sup>n 1987, DAE-SRC got subsumed in AERB as OPSD and Executive Director, OPSD was designated as Chairman, SARCOP, who is the ex-officio Member of the Board. Currently, Executive Director, AERB is the ex-officio Member of the Board who also functions as Chairman, SARCOP.





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### **CHAIRMAN**

4.7 The Chairman, AERB is vested with the executive functions of the Secretariat and exercises administrative and financial powers for smooth functioning of the organisation. He discharges certain responsibilities on behalf of the Board as delegated by the Board and is responsible for overall supervision. Chairman, AERB, by virtue of being 'Competent Authority' under various rules promulgated under the Atomic Energy Act, 1962, has additional responsibilities to be performed.

# 4.8 Chairman is responsible for establishing an IMS for effective conduct of various regulatory and management processes and associated activities and monitors that the performance of AERB with respect to the processes, responsibilities, effective operation of interfaces within and with external agencies, accountabilities at different levels of authority are as per IMS.

Responsibilities

4.9 Chairman develops and promulgates the basic tools required for regulation i.e. the regulatory requirements and guidance through regulatory documents for nuclear and radiation facilities.

Chairman organizes the availability of qualified human resource and ensures that an appropriate strategy for manpower induction, competence development, knowledge management, and training of its Secretariat exists and is followed.

Chairman also assesses and finalizes the annual budget as well as long term plan for financial requirement.

## Administrative and Financial Authority

- 4.10 The Chairman has full powers of the Head of a Department under various Government Rules as per S.O.4772. For administrative convenience, the Chairman further delegates some of the administrative and financial powers, as are redelegatable, to other officers in the Secretariat with due regard to their levels of responsibilities.
  - i) Appellate Authority for disciplinary actions against Group B employees of AERB under CCS (CCA) Rules.
  - ii) establishes the organisational setup of the Secretariat with job responsibilities and may carry out any re-organisation within the approved framework as deemed necessary
  - iii) constitutes high level committees like ACNRS, expert panel/groups, tier-II regulatory Committees, etc. (SARCOP, SARCAR, ACPSR, ACS etc.)
  - iv) decides on international deputation of its staff
  - v) constitutes Executive Committee
  - vi) interact with the secretariat as necessary to provide specific guidance on a policy related matter or to take stock of the activities in hand and management related issues.





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#### **EXECUTIVE DIRECTOR**

4.11 Chairman designates Executive Director, who is also an ex-officio Member of the Board, for routine supervision of regulatory and administrative functions of the Secretariat. In addition to various regulatory responsibilities delegated, Executive Director is delegated with financial and administrative powers.

Responsibilities

4.12 Executive Director is primarily responsible for overseeing the implementation of the management system. Executive Director, in particular ensures that complexities of the processes, the interdependences and interactions between various processes are identified and accordingly plans and procedures are formulated. He ensures that the grading of the management system is maintained by prioritizing safety issues for optimal regulatory attention and resource utilization. He conducts periodic assessment of all regulatory and management processes for further actions. Executive Director aids the Chairman, AERB in management of financial and human resources, formulation of Long Term financial plans, Annual Budget and performance related Targets and reports.

Executive Director heads the Executive Committee of the Secretariat which periodically monitors and reviews the effectiveness of all regulatory processes

As ex-officio member of the Board, Executive Director can also act as an interface between DAE and the Board, if necessary.

Administrative and Financial Authority

4.13 Executive Director is vested with such financial and administrative authorities as is delegated by Chairman, AERB who is vested with the executive functions of the Secretariat. The powers to approve capital budget expenditure for modification activities and revenue budget expenditure for routine activities is completely exercised by Executive Director. Executive Director may exercise the financial and administrative authority which are beyond the delegated powers, in the absence of Chairman, AERB, subject to Ex-Post facto approval from Chairman, AERB, except those requiring

- o Appropriation and re-appropriation of funds
- o Major Re-organisation of the Secretariat
- o Finalization of the financial budget
- Appellate Authority for disciplinary actions against Group C employees of AERB and appointing and disciplinary authority for Group B employees of AERB under CCS(CCA) Rules
- ii) controls participation of staff in workshops, technical meetings, seminars, training etc. within India
- iii) constitutes Tier-I committees (e.g. unit level safety review committees, specialist groups, task force, working groups) as necessary for functioning of the Secretariat.
- 4.14 For details of responsibilities and authorities delegated to various levels in the Secretariat, please refer Annexure-II.





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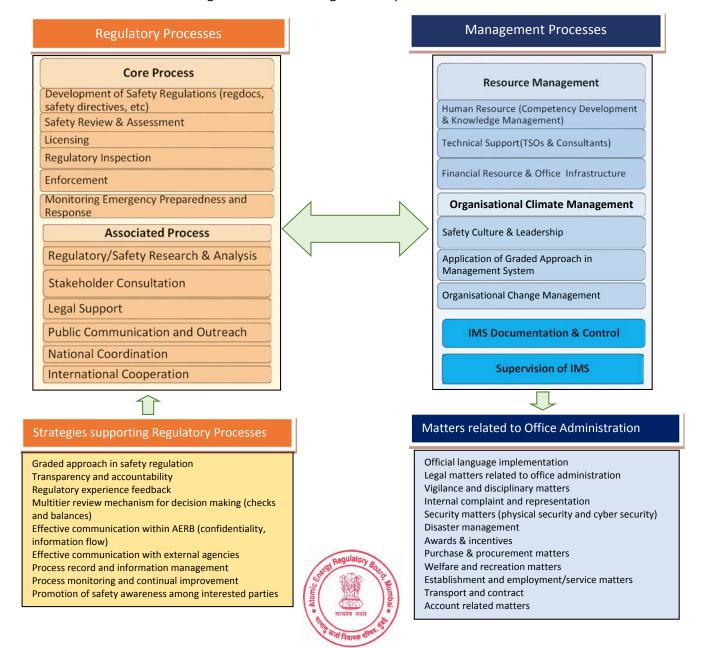
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**Chapter-5** 

### **Regulatory and Management Processes**

5.1 Regulatory processes are planned and implemented for effectively carrying out the assigned functional mandate. These are categorized as Core Regulatory Processes and Associated Regulatory Processes. Regulatory strategies are implemented through associated activities to improve the efficiency and effectiveness of regulatory processes. Management processes are planned and implemented to ensure effective resource allocation and maintain a positive organisational climate. The overall arrangement of various processes and strategies is depicted in figure-1. This chapter provides policy statements and management expectations for the core and associated regulatory processes and management expectations from the management processes. It also identifies strategies supporting regulatory processes and areas related to office administration.

Figure 1. Overall arrangement of processes in AERB





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### **A1. Core Regulatory Processes**

Process	Policies and Management Expectations
Development	5.2 The policies governing development of safety regulations by AERB are as follows:
of Safety Regulations (Regdocs, safety	(1) AERB shall develop safety regulations in form of regulatory documents, safety directives etc. in line with national legislative framework to ensure the permanency and consistency of regulatory control and to minimise subjectivity in decision making;
directives, etc.)	(2) The regulatory body should refrain from prescribing specific designs, management systems or operational procedures;
	(3) AERB shall establish regulatory requirements that are clear and easily understood by all stakeholders;
	(4) As part of its integrated management system, AERB should establish a formal strategy and methodology for the development of safety documents and regulations for regulation of nuclear and radiation facilities and activities;
	(5) For development of safety regulations, AERB may take help from TSOs, experts or consultants as part of document development committees. AERB shall ensure that such support should not cause any undue influence that may compromise regulatory independence;
	(6) AERB shall apply graded approach specifying the requirements and guidance for
	regulation of facilities and activities, based on their radiological and other hazard potential and associated complexities;
	(7) The system of safety regulations should provide an appropriate balance between regulatory provisions that are sufficiently detailed to achieve and maintain safety, and sufficiently flexible to permit their application to developing technologies and in evolving circumstances;
	(8) The safety regulations should provide the performance criteria for structures, systems and components, and management and operational procedures and processes, to be achieved during siting, design, construction, operation and decommissioning of facilities;
	(9) AERB should give consideration to supplementing its regulations with supporting guidance on how to comply with regulations, where appropriate;
	(10) While developing or revising Safety Regulations, AERB shall consider outcome of discussion/safety review & assessment, regulatory inspection, technological developments, available safety research findings and national and international experience and lessons learnt, as appropriate;
	(11) AERB shall take into account the relevant IAEA Safety Standards, Security publications and, as appropriate, other regulations and/or good practices from other international / national agencies or regulatory bodies as appropriate.
	5.3 As part of management expectations the development of safety regulations should
	i) cover all practices and activities;





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ii)	be timely and provide for defined time duration for each stage of development
	and its monitoring/follow up;

- iii) ascertain that requirements are clear, unambiguous and legally tenable;
- iv) continually monitor the adequacy and necessity of the documents and update them;
- v) be up to date and complete;
- vi) be compatible with legal framework;
- vii) provide for stakeholder consultation and obtain expert comments and public comments wherever applicable;
- viii) obtain feedback from stakeholders on published documents for revision/updation;
- ix) identify the documents to be uploaded on website/maintained in library and those for restricted circulation.

## Safety Review and Assessment

5.4 The policies governing safety review and assessment by AERB are as follows:

- (1) AERB shall establish a mechanism for review and assessment of safety (including industrial safety in DAE units) and security which have bearing on safety. It should enable AERB to ascertain the adequacy of safety demonstration by the facilities or activities and enable AERB to make a decision or a series of decisions on the acceptability of the facility or activity in terms of safety;
- (2) AERB shall review and assess relevant information submitted by the applicant or licensee to determine whether facilities comply with regulatory requirements and the conditions specified in the licence;
- (3) Review and assessment shall be done prior to the issue of licence and continued periodically during the life cycle of the facility including safety related events;
- (4) Regulating safety and nuclear security aspects in such a way that safety measures and nuclear security measures are designed and implemented in an integrated manner so that nuclear security measures do not compromise safety and safety measures do not compromise nuclear security;
- (5) Review and assessment shall be carried out by means of a systematic and formalised process implemented through specific procedures in order to provide assurance that all topics significant to safety are covered consistently with submissions for similar facilities or activities;
- (6) Organisation and administration together with human factors play a significant role in ensuring safety culture. So, apart for technical review, AERB should examine the organisation and administration of licensee to ensure that they comply with the requirements of all aspects of management for safety including organisational changes;
- (7) A multitier mechanism shall be established to ensure that adequate depth and coverage of safety review and assessment is conducted commensurate with the risks associated with the facility, in accordance with a graded approach;
- (8) While all the review elements necessary to establish a safety case shall be considered, the level of detail / review required shall be subject to graded approach;





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(9)	AERB shall develop high level of professional competency and shall have
	sufficient staff capable of performing independent safety review and
	assessment, or evaluating assessments by licensees;
(4.0)	APPRILITATION OF THE PRINCIPLE OF THE PR

- (10)AERB shall take views of stakeholders in decision making process in appropriate manner.
- 5.5 As part of management expectations the safety review and assessment process should
- i) be time bound;
- ii) encourage major involvement of in-house staff and utilise in-house competence and identify instances which need deliberations in safety committees;
- iii) provide for recording the basis of all recommendations;
- iv) provide for effective coordination among interdependent processes;
- provide arrangement for analysis of operational experience feedback obtained v) from national and international sources
- vi) provide for effective demonstration of safety culture and leadership by all staff of AERB involved in the process;
- identify the responsibility for maintenance of records/documents at various vii) steps of the process, traceability and retrievability;
- viii) feedback to Regulatory Inspection and Regdoc development.
- Ensure establishment of plant level and corporate level reviews by licensee, ix) wherever applicable

### Licensing

- 5.6 The policies governing licensing by AERB are as follows:
- (1) Licence (in the form of license, authorisation, registration) by the AERB including specification of the conditions necessary for safety shall be a prerequisite for all those facilities and activities that are not exempted;
- Licence should be granted or denied in accordance with the legal, governmental (2) and regulatory requirement;
- AERB shall establish effective regulatory control for safety throughout the (3) lifetime of the facility or activity and shall be commensurate with the radiation risks associated with the facilities and activities, in accordance with graded approach. When performing review, assessment or inspections throughout the licensing process AERB should follow the graded approach;
- (4) AERB shall establish liaison with other authorities, if any, that also have responsibilities for safety within the legal framework so as to conduct regulatory functions effectively and avoid any conflicts;
- (5) Any amendment, renewal, suspension or revocation of the licence for a facility or activity shall be in accordance with the formal procedure;
- (6) AERB shall develop high level of professional competency for appropriate interpretation of application and relevant legislative and regulatory requirements associated with licensing;





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(7	')	The sa	fety	docun	nent	and	regula	ation	descr	ibing	the	licensing	g process	should
		identif	y the	essen	tial s	ubm	issions	to be	e mad	e by t	he a	pplicant		

(8) The licence condition should specify the requirements for reporting on events that are considered significant to safety and should specify the types of events that require reporting.

### 5.7 As part of management expectations the licensing process should

- i) establish appropriate licensing frame work for grant or refusal of license;
- ii) be within the stipulate time frame and as far as possible, efforts should be made to minimise the time taken without compromising safety;
- satisfy all statutory and mandatory requirements and where it fails to do so, should provide for recording the appropriate justification for the same;
- iv) provide for decision making hierarchy as spelt out in this document;
- v) provide for recording the basis of all regulatory decisions with respect to licensing;
- vi) follow a graded approach based on risk associated and quantum of job;
- vii) provide for effective coordination among interdependent processes;
- viii) identify the responsibility for maintenance of records/documents at various steps of the process, traceability and retrievability.

## Regulatory Inspection

- 5.8 The policies governing regulatory inspections conducted by AERB are as follows:
- (1) AERB shall carry out inspections of facilities and activities to verify that they are in compliance with the regulatory requirements and with the conditions specified in the license. It shall not diminish the prime responsibility for Safety of the licensee;
- (2) The planning for inspection programme which includes the manner, scope, extent and frequency of inspections shall be in accordance with a graded approach;
- (3) Inspection findings should be categorised based on safety significance which enables the follow up actions in accordance with graded approach;
- (4) AERB should develop and maintain competency among inspectors to enable them to evaluate and clarify safety related issues and to identify non-compliances;
- (5) RI process should provide feedback to safety review process and also to regulatory requirements developments process;
- (6) The consolidated information regarding regulatory inspections conducted by AERB should be made publicly available.
- 5.9 As part of management expectations, the regulatory inspection process should
- i) identify the annual inspection schedule for routine inspections;
- ii) plan and programme the inspection as per the approved schedule and ensure adequate coverage of all relevant areas;





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iii)	provide its inspectors with written guidelines in sufficient detail to ensure that
	facilities and activities are inspected to a common standard, based on a graded
	approach, and that there is a consistent level of safety;
iv)	provide for checking the effectiveness of utility's management system (i.e.
	whether non-conformances are identified and corrective actions are taken in
	time);

- provide for sample checks of actual field conditions; v)
- vi) the observations are recorded in presence of utility representatives;
- vii) the inspection report is clear, unambiguous and issued within stipulated timeframe;
- viii) provide for effective coordination among interdependent processes;
- ix) provide for balanced conduct of inspection team members and effective demonstration of safety culture and leadership by all staff of AERB involved in the process;
- x) have a system to assess, review and monitor all aspects of its inspection to ensure that they are carried out in an effective manner.

### Monitoring **Emergency** Preparedness and Response

5.10 The policies governing the process for monitoring emergency preparedness and response are as follows:

- Establish national requirements for emergency preparedness and response (1) (EPR) and provide necessary guidance for ensuring compliance;
- (2) The extent and depth of the regulatory review and approval of EPR plans, conduct of inspections and observation of exercises shall commensurate with the overall risks following graded approach;
- AERB should provide necessary support and co-ordination towards the (3) development and execution of the national emergency response framework/plan for nuclear and radiological emergency;
- (4) AERB should strive to review and improve regulations and policies w.r.t emergency preparedness based on feedback from implementation and outcome;
- (5) It shall be ensured that the activities of AERB in monitoring an emergency situation including any advice does not undermine the responsibility of the Licensee/response organisations and impede from taking pre-planned response actions in a timely manner.
- As part of management expectations, the regulatory process of monitoring emergency preparedness and response should
- i) ensure national requirements are at par with current international benchmarks;
- ii) be well prepared to discharge its assigned responsibilities in monitoring an ongoing emergency condition;
- conduct such activities to develop necessary technical basis and knowledge iii) towards country specific issues and aspects related to new reactor concepts and designs in support bringing out regulatory requirements on emergency preparedness;
- verify the on-site arrangements maintained by the Licensee (review and iv) approval of EPR plans, assessment of findings through regulatory inspections





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and observation on emergency exercises) through a systematic, complete a	nd
onsistent methodology;	

- v) establish necessary internal arrangements for effective conduct of the process. This should include developing necessary set of procedures and interface mechanisms;
- vi) be able to assess the coordination and integration of on-site emergency arrangements with off-site emergency arrangements by cooperation with relevant authorities or through the established coordinating mechanism;
- vii) keep itself informed on an emergency situation by collecting information, analyse the situation without interfering with the Licensees responsibilities for safety;
- viii) develop state of the art monitoring and analysis capabilities for prompt assessment and clear communication to public on emergency situations;
- ix) develop in-house competency necessary for executing AERBs functions with respect to nuclear and radiological emergency.

### Enforcement

### 5.12 The policies governing the process for Enforcement are as follows:

- Enforcement actions should be applied, as necessary, by AERB in the event of (1) deviations from, or non-compliance with, regulatory requirements or with the conditions of the licence:
- (2) Regulatory enforcement activities should cover all areas of regulatory responsibility vested with AERB;
- Enforcement actions should be applied as necessary by AERB using a graded (3) approach appropriate to the legal system and licensing process. The safety significance of the non-compliance or of violation & complexity of its corrective action, repetition, willful action, past performance & safety culture and other associated factors should be considered by AERB while deciding the type of enforcement action;
- (4) Enforcement actions by AERB should aim safety by deterring non-compliance, encouraging prompt identification and correction of violation of regulatory requirements;
- (5) AERB should encourage and influence licensee for voluntary compliance before resorting to enforcement actions;
- (6) Competency for making independent judgment and deciding enforcement actions shall be ensured and associated staff must be aware of enforcement procedures;
- (7) Immediate enforcement action by AERB inspectors shall be through a formal procedure following legal provisions, safety regulations and consent from appropriate hierarchy in decision making;
- (8) While taking enforcement actions AERB should maintain consistency, openness and transparency in the treatment of licensed parties.

#### 5.13 As part of management expectation the enforcement process should

- i) provide opportunity to be heard prior to deciding on enforcement;
- ii) record the basis for taking enforcement actions and it should be transparent;
- iii) be prompt, consistent and timely;
- iv) verify execution of the enforcement action;





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v) define the authority for approving enforcement actions according to hierarchy following a graded approach.

### **A2.** Associated Regulatory Process

Process	Policies and Management Expectations
Regulatory and Safety Research & Analysis	5.14 The policies governing the activities related to Regulatory / Safety Research and Safety Analysis are as follows:
	(1) AERB shall carry out, facilitate or commission or promote regulatory and safety related research and safety analysis to support regulatory functions of AERB that require sound, state-of-art scientific / technical basis;
	(2) The Regulatory and Safety related Research activities of AERB shall include both 'confirmatory' research component that is primarily based on the current and near-term requirements and longer term 'anticipatory' research component which is exploratory in nature and deals with emerging subjects;
	(3) AERB shall develop and maintain high level of technical expertise to conduct state of art safety related research to support development of AERB's safety regulations as well as to facilitate regulatory decision making;
	(4) The conduct of AERB's safety related research activities shall in no way dilute the responsibility of licensees' own safety research and development programme;
	(5) AERB shall make best use of the findings of the state of art research carried out in areas of its regulatory/ safety interest already available from industry, licensee and academia without compromising on the AERB's independent view on the subject topic for making regulatory decisions;
	(6) AERB shall collaborate with regulatory authorities, research related organisations, academia and multi-lateral projects, nationally as well as internationally, to facilitate research activities/ analyses and benefit from the research outcome in the areas of common interest;
	(7) The safety related research and analyses activities undertaken shall be commensurate with AERB's Vision and Mission.
	5.15 As part of management expectations, the regulatory and Safety related research and safety analysis process should
	<ul> <li>i) support regulatory review &amp; licensing in a time bound manner (confirmatory research/analysis);</li> <li>ii) develop commensurate competence &amp; infrastructure;</li> <li>iii) focus on research towards protection of public &amp; environment;</li> <li>iv) carry out Regulatory and safety related research towards anticipated developments (anticipatory research);</li> </ul>





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	v) interact with universities, research institutions and professional associations for carrying out joint/ collaborative research relevant to its mandate and periodical review of the progress.
Stakeholder Consultation	5.16 The policies governing stakeholder consultation by AERB during conduct of its core regulatory process are as follows:
	(1) AERB shall promote the establishment of appropriate means of informing and whenever necessary consulting stakeholder about the possible radiation risks associated with facilities and activities;
	(2) AERB should establish provisions for informing stakeholders about the regulatory decision making processes;
	(3) AERB should be committed to a high level of transparency and openness, while ensuring an adequate level of protection of sensitive information, in order to address the legitimate concerns of stakeholders in nuclear and radiation safety matters;
	(4) AERB should provide information on its activities related to emerging safety issues and new initiative taken for obtaining the views of stakeholders.
	5.17 As part of management expectations, stakeholder consultation process should
	<ul> <li>i) be transparent as possible while respecting any requirements of commercial confidentiality and information security;</li> </ul>
	<ul><li>ii) consult with stakeholders on its policies, regulations, guidance and operations in accordance with national legislation and given mandate;</li></ul>
	<ul><li>iii) develop an approach to obtain views of the stakeholders and consider issues and concerns of the public regarding safety;</li></ul>
	<ul> <li>iv) develop competency in order to be able to engage in effective dialogue, representation and interaction with all stakeholders through committed listening, speaking, writing and delivery of presentations, understanding potential bias and delivering meaningful messages;</li> </ul>
	v) develop competency to be able to talk effectively in small groups and to large audiences, to respond appropriately to questions, to provide factual answers
	consistent with the AERB's views, and to communicate complex issues clearly; vi) not be unduly influenced to take any action that could compromise safety or that would call its independence into question in any interaction with stakeholders.
Legal Support	5.18 The policies governing legal support by AERB are as follows:
	(1) AERB should make arrangements (Legal cell) to have access to expert legal advice on matters related to
	<ul> <li>safety regulations and document development/amendment</li> <li>discharge of its functional mandate</li> </ul>





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- international obligations, national legal framework, national legislation, bilateral arrangements;
- AERB should ensure that legal support is available at point of use to avoid undue (2) delay in conducting regulatory processes;
- (3) AERB should ensure availability of professional legal support
  - to strengthen the regulatory affairs considering implementation of its assigned functions against the extant legal provisions
  - for imposition of penal provision under applicable legal statutes
  - for dealing with court matters
  - on matters related to regulatory decisions on licensing and enforcement actions
  - on disclosure of information or dealing with grievances or handling of parliamentary affairs
  - for development of internal administrative legal procedures;
- (4) AERB should periodically monitor the arrangement for providing legal advice to regulatory processes.

### 5.19 As part of management expectations, legal support process should

- ensure availability of necessary competence for providing support in legal i) matters;
- ii) provide advice and opinions in a time-bound manner;
- iii) ensure transparency and consistency in the legal advice;
- ensure compatibility with relevant laws and regulations; iv)
- v) record the basis of legal opinions;
- keep abreast of the latest developments and court decisions /judgments. vi)

### Public Communication & Outreach

5.20 The policies governing public communication and outreach by AERB are as follows:

- (1) AERB should maintain communication with public and other targeted audience through a designated contact person and through identified communication channels to be used at normal as well as during crisis situations;
- (2) The Communication should be transparent; comprehensive, consistent and unambiguous; factual and authenticated with aim to build trust public confidence;
- (3) AERB should endeavour to facilitate up-to-date and timely communication in a resource efficient manner;
- (4) AERB should keep informed and create awareness among the general public, including those residing in the vicinity of nuclear facilities, about the facts on nuclear and radiation safety, its own regulatory role and regulatory decisions taken during normal as well as during crisis situations;
- (5) In the event of abnormal events at any licensed facilities AERB should be assured that the information provided are factual and objective as possible, reflecting AERB's independence;





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- (6) AERB should apply due diligence in dealing with classified information in strict accordance to the relevant protocols;
- (7) AERB should establish procedures for public communication and outreach in accordance with the communication strategy adopted by AERB;
- (8) AERB should periodically monitor the efficacy of the communication procedures for further improvement.
- 5.21 As part of management expectations, Public Communication and outreach process should be
- i) Covering normal as well as crisis time communication;
- ii) Prompt, timely and relevant;
- iii) Clear, coherent, simple;
- iv) Consistent, open and transparent;
- v) Effective and efficient;
- vi) commensurate with radiation risks with targeted objectives in line with graded approach;
- vii) Providing clear understanding on safety aspects of radiation;
- viii) Focussed towards enhancing public trust and building organisational credibility in matters connected with independence, competence, integrity and impartiality;
- ix) Through established single contact point.

## National Coordination

- 5.22 The policies governing national coordination activities conducted by AERB are as follows:
- (1) Maintain liaison with relevant Ministries and Central Government Departments;
- (2) Ensure fulfilment of the commitments arising out of regulatory responsibilities under statutes administered by other government agencies and citizen centric administrative mandate pertaining to AERB;
- (3) Participate in relevant inter-ministerial/governmental meetings to promote cooperation and assistance;
- (4) Enter into formal/informal arrangements with various external entities at national level on matters of regulatory interest to avoid overlapping and bridge the gaps in the regulatory activities, if any.
- 5.23 As part of management expectations, the national coordination process should address the following:
- i) Establish mechanism for coordination with Central Government for
  - b. administrative interfacing with Atomic Energy Commission (AEC), Prime Minister's Office (PMO) and other Government Ministries/Department;
  - Advise and support AEC/DAE on matters connected with safety of public and environment, environmental surveillance and emergency arrangements, and in matters related with international obligations;





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- d. access the expertise available in relevant organisations for conduct of regulatory activities;
- e. access academic and training programmes of other agencies as necessary for training and recruitment of staff of AERB.
- ii) Ensure liaison with other external entities at national level for
  - a. Strengthening of regulatory interfaces;
  - b. Sharing regulatory experience;
  - c. Technical & Scientific Support and Cooperation;
  - d. Sharing Information on Topical Issues and Seeking Assistance/Cooperation;
  - e. Carrying out Functions on behalf of AERB;
  - f. Seeking support of external consultants.
- iii) Identify opportunities to improve and strengthen the regulatory processes by taking into account
  - a. National safety standards, good practices, feedback gained from related experience;
  - b. national peer review exercises for demonstrating accountability;
  - c. technical knowledge obtained from national research and development programmes;
  - d. Knowledge networking at national levels;
- iv) Identify the point of contact for national coordination activities for effective communication.

### International Cooperation

- 5.24 The policies governing international cooperation activities conducted by AERB are as follows:
- (1) Ensure fulfilment of the commitments arising out of international obligations as assigned to AERB;
- (2) Participate in relevant international arrangements to promote international cooperation and assistance to enhance global safety in nuclear and radiation safety;
- (3) Establish multilateral or bilateral cooperation agreements with regulatory bodies /TSOs of other countries or international organisations to enhance safety by means of harmonised approaches and to improve regulatory effectiveness by way of exchange of information, mutual assistance in regulatory activities, staff training and staff meetings on a regular basis.
- 5.25 As part of management expectations, the international cooperation process should address the following:
- Towards fulfilment of the international obligations committed by the Government, take part in the international cooperation activities and develop regulations to meet those obligations;





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- ii) As part of international cooperation activities to fulfil safety obligations and to promote cooperation under multilateral and bilateral arrangements,
  - a. Contribute in global harmonisation of safety standards
  - Make arrangements for exchange of safety related information and sharing of operational and regulatory experience feedback and good practices
  - c. Share information on incidents, including accidents, in accordance with the pre-planned arrangements.
  - d. Utilise knowledge networks at international levels for exchange of information and new ideas
  - e. Participation in international activities related to Safety Analysis and Research
  - f. Participation in Training Programs at international level
  - g. Participate in appropriate international cooperation exercises and peer reviews.
- iii) Identify opportunities to improve and strengthen the regulatory processes by taking into account
  - a. internationally agreed standards
  - b. feedback gained from related experience
  - c. relevant international good practices
  - d. international peer review exercises (including informal interactions with counterparts)
  - e. technical knowledge obtained from international research and development programmes.
  - f. Knowledge networking at international levels.
- iv) Make arrangements for training of its staff and competence enhancement through international exchange of information;
- vi) Identify the national point of contact for international systems for effective communication of information.





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#### **A3. Management Process**

#### **Human Resource (Competency Development & Knowledge Management)**

- 5.26 Competency of AERB staff is one of the key elements in ensuring effective regulations. To maintain a competent human resource, the Management of AERB provides for :
  - a. Identification of the need for human resource and the areas of expertise/skills;
  - Identification of sources for recruitment (open market specialised, training schools, industry);
  - c. Planning for systematic recruitment of personnel with requisite qualifications as per the sanctioned posts;
  - d. Judicious allocation of human resource commensurate with the graded approach followed in regulated activities;
  - e. Providing for basic induction training to orient the recruited staff to focus on safety(class room &on the job);
  - f. Periodic competence mapping of the staff and arranging for their knowledge upgradation (training, mentoring, nomination and deputation for national and international courses, seminars, conferences, workshops etc.) and knowledge management tools such as library services, knowledge management portals etc.;
  - g. Periodic assessment of performance of the staff.

#### **Technical Support (TSOs, Consultants etc.)**

- 5.27 Apart from its own staff, AERB utilises the technical support and services of experts and TSOs. To avail technical support, the management of AERB provides for:
  - Identification of areas requiring technical support;
  - b. Identification of organisations/experts/consultants with requisite competence for providing technical support;
  - c. Identification of areas of conflict of interests and see to their satisfactory resolution;
  - d. Providing formal mechanism for the engagement of TSOs/experts as consultants.

#### **Financial Resource & Office Infrastructure**

- 5.28 In order to discharge its responsibilities effectively and efficiently, Management of AERB ensures adequacy and sufficiency of financial resources through:
  - a. Identification of financial requirements as per the organisational need and formulate budget proposals;
  - b. Judicious allocation of the sanctioned financial resources;
  - Monitoring of proper utilisation of financial resources to ensure availability
    of sufficient infrastructural amenities.

Resource Management





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Resource Management

Organisational

Climate

5.29 Apart from financial resource the management of AERB ensures proper maintenance and continual improvement in office infrastructure which includes,

- Identification of the infrastructure (including civil & IT) requirement as per organisational need;
- b. Requirements with respect to establishment of regional centers;
- c. Monitoring proper utilisation of office infrastructure;
- d. Allocation of appropriate infrastructures in accordance with the entitlement and assigned responsibilities.

5.30 Safety is considered paramount within AERB's management system, overriding all other demands. To ensure leadership and consciousness for safety at all levels in the organisation, the integrated management system is designed to ensure the following aspects:

**Safety Culture and Leadership** 

- a. Achieving common understanding on the key aspects of safety culture within organisation;
- b. Providing means to support individuals and teams within AERB in carrying out the tasks safely, efficiently and effectively;
- c. Measures taken by AERB for reinforcing learning and questioning attitude at all organisational levels;
- d. Identification and implementation of measures for assessment and improvement of the safety culture in the organisation.

### 1 Th

#### **Application of Graded Approach in Management System**

- 5.31 The extent of planning, implementation, assessment and review carried out as part of implementation of IMS are graded so as to deploy appropriate resources. The basis of such gradation are as follows:
  - a. The significance of the process considering (1) public interest, (2) administrative and legal requirements, (3) Applicants' / utilities' safety issues and (4) technological complexity of the matter; Further, they need to be applied in the given order;
  - b. The hazards and the magnitude of the potential impact (risks) associated with (1) the safety, health and security, (2) environmental and quality (3) societal economic factors that can be related to the process or activity respectively;
  - c. The possible consequences if the process is not performed as expected or an activity is carried out incorrectly;
  - d. Completion time that the process may need, considering underlying risk to health, safety and security of the associated activity. Less the time that can be tolerated more the resource the process needs;
  - e. The process is being conducted for first of a kind application / facility under consideration or the process is well-defined and repeated in nature.





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Organisational
Climate
Management

#### **Organisational Change Management**

- 5.32 Need for organisation changes may arise due to
  - a. current evolution / obsolescence of regulatory practices;
  - b. functional requirements, grouping of similar activities / segregation of dissimilar activities;
  - c. resource optimisation and streamlining of processes for improving efficiency;
  - d. feedback from assessments.

For effecting any organisational change, the Management of AERB carries out assessments for the changes with respect to potential effects on safety. Considerations are given to the possible need for temporary part time resources and for compensatory measures to manage the impacts during transition phase. Organisational structure and its re-organisation is approved by Board of AERB. Establishment of regional centres and major infrastructural changes in the headquarters are approved by Board.

IMS
Documentation
and Control

5.33 This management process is described in Chapter-7 of this document. This process deals with management and control of IMS documents which will be included in the Level-IIA document of the nodal Division/ Directorate.

Further to note that Records /documents generated as outcome of regulatory and management processes and inputs for the processes like submissions, applications, proposals, etc. are maintained by respective process owners in accordance with strategy on process record and information management.

Supervision of IMS

5.34 The objective of supervision is to ensure that Integrated Management System is being implemented effectively in the organisation. The supervision of IMS will be carried out periodically independently through Internal Audit and External Audit. For ensuring independence in internal audit, nodal division (RDD) responsible for this, reports directly to the Chairman, AERB. The external audit will ensure independent oversight of AERB and its key decisions. The process will be able to identify any deficiency in IMS, deviations or inconsistency between IMS Level I, Level II, Level III documents and office orders issued by the Management. This process shall not only ensure the implementation of core regulatory processes but also the implementation of management processes, strategies in support of regulatory processes and matters related to office administration across the organisation. Outcome and identified corrective actions of internal audit are reviewed and implemented following graded approach (chapter 8). Chairman, AERB is responsible for inviting external audits. These processes will be coordinated by identified Division/Directorate. The outcome of this process may be utilized by the Top Management as one of the inputs for monitoring the functioning of the organisation.





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### **B. Strategies Supporting Regulatory Processes**

Strategy for	Associated Activities
Graded Approach in Safety Regulation	5.35 Develop guidance for application of graded approach in the core regulatory processes and decision making levels within the Secretariat. Divisions/Directorates responsible for conducting core regulatory processes should develop relevant procedures for implementing graded approach in line with the guidance document.
Transparency and Accountability	5.36 Methodology to be established for maintaining and enhancing transparency and accountability in functioning of AERB including redress of public grievances, handling of RTI applications and dealing with parliamentary matters. It will be periodically evaluated by external agencies like CAG, PAC or similar external audit as per statutory requirement.
Regulatory Experience Feedback	5.37 Develop method for capturing, evaluating, utilising and monitoring the regulatory experience feedback from relevant sources for improving core regulatory processes.
Multitier Review Mechanism for decision making (checks and balances)	5.38 Develop guidelines for formation, functioning and assessment of committees taking into account conflict of interest arising from involvement of representatives from licensee organisation and TSO, their functioning and evaluation of their functioning and ensure implementation throughout the AERB.  The guideline should also include recording and minuting the deliberations resulting in regulatory decision making and its communication to the stakeholders.
Effective Communication within AERB (confidentiality, information flow)	5.39 Develop protocol for communication within AERB and ensure its implementation. Procedure for internal communication should be developed by individual Division/Directorate following the protocol.
Effective Communication with External Agencies	5.40 Develop protocol for external communication. The communication with external agencies including communication of regulatory decision shall be according to formal protocol established.
Process Records & Information Management	5.41 Determine strategy and criteria for management of process records and information. Procedures w.r.t. the processes shall be developed by respective Divisions/Directorates and other offices in AERB. Utilisation of various





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	information in regulatory processes, handling of proprietary information & confidentiality need and management of records generated from various processes shall be through formal procedures.
Process Monitoring and Continual Improvement	5.42 Develop guidance for carrying out periodic self-assessment of regulatory processes, review of findings and taking corrective actions and informing the management through monthly and quarterly reports. Process specific procedures for self-assessment shall be developed following the guidance.
Promotion of safety awareness among Interested Parties	5.43 Develop methodology, approach and implementation plan to promote safety awareness among licensee organisation through seminars, discussion meets, awards etc. Make arrangement for educating law enforcement authorities, emergency responders as necessary.

#### C. Matters related to Office Administration

Areas	Associated activities
Official Language Implementation	5. 44 Procedure for promotion of official language within AERB shall be developed
	Procedure for implementation of official language shall be developed in various divisions of AERB
Legal matters related	5.45 Procedure shall be developed for dealing with office administration
to office	(personal and establishment) related legal matters, departmental contracts.
administration	Timely response shall be ensured w.r.t. the legal matters.
Vigilance and	5.46 Procedure for dealing with vigilance matters and matters requiring
disciplinary matters	disciplinary action shall be developed for expeditious closing of the matters.
Internal Complaint	5.47 Procedure shall be developed for dealing with staff complaints and
and representation	representation including matters of sexual harassment at workplace. Women's Cell shall be constituted as per statutory guidelines.
Security Matters	5.48 Procedure shall be prepared for ensuring physical security at workplace
(physical security)	in consultation with Security Section of DAE and ensure implementation of
	security culture among the staff.
Disaster	5.49 Procedure for handling crisis situations in the organisation shall be
Management	developed (fire/natural disaster/pandemic situation etc) and adherence to
	the procedure shall be ensured.
	5.49 Procedure for handling crisis situations in the organisation shall be developed (fire/natural disaster/pandemic situation etc) and adherence to





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Awards & Incentives	5.50 Criteria and Procedure for giving awards and incentives to AERB staff shall be developed and followed.
Purchase &	5.51 Procedure for purchase and procurement of capital and other items shall
Procurement Matters	·
Procurement Matters	be prepared as per Govt. guidelines and shall be implemented. Document on
	Delegation of Financial Powers (DoFP) shall be made available as a reference
	for procurements.
Welfare and	5.52 Procedure for welfare and recreation activities of AERB staff such as
<b>Recreation Matters</b>	canteen, staff club, gymnasium, etc. shall be developed and followed.
	,
<b>Establishment and</b>	5.53 Procedures for dealing with employment and service matters of AERB
employment/service	staff and its employees shall be developed and implemented.
matters	
Transport and	5.54 Procedure for awarding contracts for transport and other outsourced
Contract	activities shall be developed and adhered to during implementation.
	от поставления и
Account related	5.55 Procedure for dealing with account matters such as grant of salary, tax
matters	deduction, settlement of claims, etc. shall be developed and implemented.
	•





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**Chapter-6** 

#### **Decision Making and Communicating Decisions**

- 6.1 Power to make decisions pertaining to regulatory processes is entrusted to the Board of AERB through S.O.4772 and to Chairman, AERB by virtue of being the Competent Authority under various rules under the Atomic Energy Act, 1962. Further, Chairman, AERB as the head of the Secretariat is also empowered to make management and administration related decisions.
- 6.2 For administrative and management decision making, the authority and powers, as are redelegatable, are further delegated by Chairman, AERB to various levels in the Secretariat. With regard to regulatory decision making, the sole authority rests with the Board (as assigned through S.O.4772) or Chairman, AERB (by virtue of competent authority under various rules). However, in order to aid the Board and Chairman, AERB in the decision making process, a structured framework has been evolved as part of IMS which provides for delegation of the responsibilities and accountabilities to various levels in the Secretariat in line with objectives, policies and strategies outlined in this document.
- 6.3 Decision making is an integral part of all regulatory and management processes of AERB. The decisions are being taken by the secretariat of AERB, either individually or collectively, and the accountability for the decision is vested to the identified decision maker, in accordance with the delegated responsibility. The major areas of decision making are elaborated in Appendix -A of this document. Individual process specific decision making levels shall be provided in respective L-IIA documents. Any officer or staff of AERB including the top and senior management can initiate a proposal with respect to regulatory or administrative activities. In all such cases the decision making process has to follow the applicable structured framework following principles of natural justice. This includes providing opportunity to be heard before decision is taken and no person shall be the decision making authority of his own proposal or a deciding authority must be impartial and neutral while deciding any proposal. Appendix-B provides the multi-tier structure of committees and their interaction with various levels of AERB management for aiding the decision making process. Annexure-II provides the responsibilities and authorities delegated to various levels in the Secretariat. The multi-tier structure of committees consists of plant / facility specific or domain specific committees at Tier-I level for focussed review of the proposals. Tier-II Committee consists of multidisciplinary experts in the area of nuclear and radiation technology for a wider and broad based review. The Apex review and decision making is carried out by the Board of AERB where experts are drawn from various reputed academic, professional or government organisations at national level.
- 6.4 The multi-tiered system of reviews follows the principle of "management by exception", following graded approach and is based on principles, requirements and criteria specified by AERB. In this approach, the issues of greater significance are given consideration at higher level committees for their satisfactory resolution. Recommendations of these committees concerning the various proposals are further considered by AERB for arriving at regulatory decisions. This arrangement ensures comprehensiveness of the reviews and checks compliance with the specified requirements.



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6.5 The multi-tier review system provides for wider representation of various stakeholders. The criteria for formation of multi-tier safety review committees is such that the decision making is inclusive, participative yet not intrusive taking into account conflict of interest. This multi-tier safety review ensures independence and graded approach in decision making. It provides checks and balances to minimise subjectivity in regulatory decisions and provides for taking into account the collective wisdom of the members for impartial, unbiased, consistent, transparent, fair, just and reasonable decisions taking all aspects in consideration.

- This system provides for taking a regulatory decision on the basis of the recommendations which has emerged out of culmination of multi-tier review process. In all cases of decision making, the ultimate responsibility and accountability of taking the decision rests with the identified decision maker to whom such authority has been delegated. In most cases, the decisions are based on such recommendations by honouring the collective wisdom of experts. If, an alternate decision is taken by the decision maker, then the reasons and justification for taking such alternate views must be recorded and will be open for scrutiny during IMS audit process.
- Before the proposal is put up to before the decision maker, if at any instance, an individual in the line of authority is of a differing opinion, then the same is generally referred back for reconsideration for getting it addressed and resolved by the same set of reviewers or any other subject domain expert of the same or higher stature as deemed appropriate. In exceptional cases, where the differing views still persist, the individual in the line of authority with the differing views may obtain a second opinion from expert(s), advisory panel, etc. However, the experts to whom such referrals are made should possess sufficient experience and expertise equal to or higher than that of those involved in the review. In such cases, all views so obtained are put up to the decision maker for taking an informed regulatory decision. If any proposal is found liable for rejection during the course of review, the same should be endorsed by the identified decision maker before communicating to the proposer. The decision maker may seek the advice of a higher officer in the line of authority in specific cases. The final decision is taken by the decision maker. The entire activity of decision making is to be completed in a time bound manner.
- 6.8 This decision making arrangement helps in establishing leadership for safety at all levels. Such arrangement ensures that all staff of AERB take personal responsibility for safety, hold themselves personally accountable and demonstrate strong values and ethics which is facilitated through questioning attitude and open communication. They feel free to raise safety concerns without fear of retaliation, intimidation, harassment, or discrimination and uphold the stated principles of ethics of AERB and ensure that safety culture gets embedded into all of regulatory processes.
- 6.9 All regulatory decisions and management decisions that affect the functioning of AERB, along with their bases, are formally recorded and communicated to stakeholders, as applicable.
- 6.10 The philosophy behind delegation of decision making authority is depicted in figure-2. The figure is only a pictorial depiction which depends on gradation in safety significance (by colour coding) and number of applications processed (by texture coding). The priority to safety, safety significance is given emphasis over quantum of the task.





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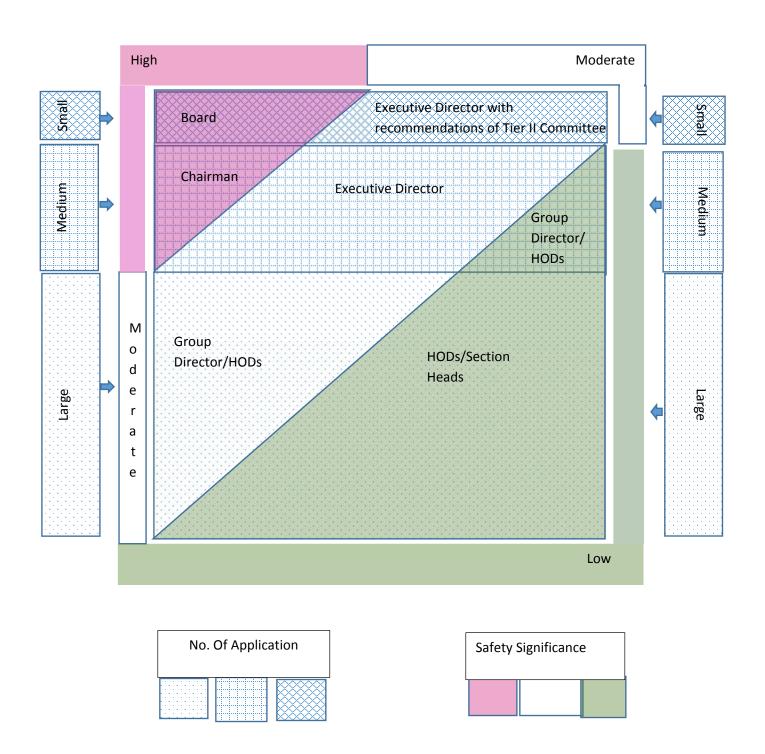


Figure-2: Philosophy behind delegation of decision making authority





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6.11 The management expectation with respect to arrangement for making informed decisions, adequate recording of decisions and communications of the decisions to various stakeholders are detailed below.

#### a) Making Informed Decisions

- i) Ensure delegation of authority to various levels in the Secretariat clarifying responsibilities, powers, and accountabilities that are kept reserved for Board, Chairman and that are delegated to staff in the Secretariat.
- ii) Document the evidence based decision making approach complying with established safety requirements to ensure independence (i.e. without external pressures or influence), impartiality, transparency, proportionality, objectivity in regulatory decisions making.
- iii) Maintain sufficient technical expertise among staff of AERB in the areas relevant to its mandate to make informed regulatory decision and to assess the recommendations or advice provided by committees, advisory bodies, TSOs and external experts.
- iv) Develop a plan to consult stakeholder affected by its decisions and allow such party to state a point of view on regulatory decisions. However, AERB shall retain the responsibility of the final decisions made on the basis of consultation / interaction with such interested parties and recommendations submitted by committees, advisory bodies TSOs, external experts, etc.
- v) Obtain legal opinion while finalising regulations, making regulatory judgements &decisions and taking enforcement actions, as deemed necessary.
- vi) Feedback from the staff of AERB should be obtained on functioning of AERB to improve the decision making.

#### b) Recording of Decision

- i) Formally record and document the decision and basis for decision, as appropriate
- ii) Internal records of decisions relating to enforcement actions and any supporting documentation including time of issuing enforcement decision after finding the non-compliance should be maintained
- iii) Records should be readily retrievable to support and justify decision making. The bases for previous decisions should also be made accessible so as to achieve consistency and to facilitate any reassessment made necessary by new information.

#### c) Communication to Stakeholders

- i) Keep all stakeholders informed of the regulatory requirements and steps involved in regulatory decision making
- ii) Communicate the regulatory decisions to the interested parties
- iii) Develop a communication plan, including the strategies and methods for communicating decisions and judgements, findings of inspections and associated follow-up actions to public.





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**Chapter-7** 

#### **Documentation of Management System and its Control**

Level-I

7.1 The Top Level IMS document (Level-I) describes the management system of AERB to meet its assigned mandate. It outlines the management commitments, organisational policies and strategies, organisational structure and delegation of functional responsibilities, accountabilities, policies governing various processes and management expectations. It provides the overview of the management processes and describes the system of assessment and improvement.

The IMS L-I document shall be reviewed in Executive Committee and approved by the Board of AERB. Chairman, AERB issues the Level-1 document.

Level-II A

7.2 Level-IIA documents provide the strategy and plan for conducting regulatory processes and management processes and the policy statements for management processes. The plans include scope, input, output and process map indicating all possible interactions within the process and with other interfacing processes (i.e. within directorate/ division or with other directorates/divisions of AERB or with organisations outside AERB). It identifies process controls, the process owner, contact person and channel of information flow for the process. The document outlines the methods and periodicity for conducting self-assessment and review.

IMS L-II A documents shall be developed by the responsible directorates/divisions and reviewed by Executive Committee. These documents will be issued by Executive Director after approval by Chairman, AERB.

Level-II B

- 7.3 Level-II B document provides criteria, protocol and guidance on strategies and associated activities which are common to various regulatory processes, such as
  - a. Graded approach in safety regulation
  - b. Transparency and accountability
  - c. Regulatory experience of feedback
  - d. Multitier review mechanism for decision making (checks and balances)
  - e. Effective communication within AERB (confidentiality, information flow)
  - f. Effective communication with external agencies
  - g. Process record and information management
  - h. Process monitoring and continual improvement
  - i. Promotion of safety awareness among interested parties

The Executive Committee is responsible for development and review of Level-II B documents by constituting task groups or by assigning the job to relevant directorate/division. These documents will be issued by Executive Director after the approval of Chairman, AERB. Executive Committee may identify any additional Level-II B documents, if necessary.



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Level-II C documents include procedures for the office and establishment management activities common to the entire organisation, such as

- a. Official language implementation
- b. Legal matters related to office administration
- c. Vigilance and disciplinary matters
- d. Internal complaint and representation
- e. Security matters (physical security)
- Disaster management
- Awards & incentives

7.4

- h. Purchase & procurement matters
- Welfare and recreation matters
- j. Establishment and employment/service matters
- k. Transport and contract
- Account related matters

The Level-II C documents are developed by identified directorate/division/task groups and reviewed by Executive Committee. Executive Director approves the issuances of L-IIC document after approval of Chairman, AERB. Executive Committee may identify any additional Level-II C documents, if necessary.

Level-III

Level-II C

7.5 Detailed procedures and work-plans for implementing the regulatory and management processes are contained in Level-III document. L-III documents clearly identifies the process executor/responsible person for execution of the activity in the Directorate/Division. Division specific procedures, checklists etc for implementation of Level-IIB and Level-IIC documents may also be developed as Level-III.

Level-III documents are developed by the process owners/responsible officer. All IMS L-III documents shall be placed before Executive Committee. Those, Level-III documents which have interface with other Directorate/Division with respect to manpower and expertise availability/requirement shall be reviewed in EC. The L-III documents shall be approved and issued by concerned Directorates/Divisions.





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7.6 The responsibility for development of IMS Level-II A and Level-II B & C documents are identified by Executive Committee, approved by Executive Director, AERB. Typical list of IMS L-II and IMS L-III documents is provided in Annexure -III of this document.

- 7.7 The depository of Management System Documents (Level-I and II) will be with the identified nodal division (at present R&DD, AERB). The indexing of all documents and their control and guidance for format of Level-III documents will be provided by R&DD.
- 7.8 A period of five years is considered for revising the IMS documents at all levels. However, in case there is direction from the Board or top management to undertake revision of specific IMS document prior to five years, the same should be carried out along with appropriate amendments in all interfacing documents. Further, if there is a major change in regulatory approach or shift in regulatory focus, it should get reflected in IMS documents as early as possible. The minor improvements (in policies, strategies, implementation plan etc) may come from 'process monitoring and continual improvement activity' or specific instructions from top management or senior management. Such improvements shall be incorporated through amendment of respective documents.
- 7.9 The IMS documents are classified as follows:
  - a) IMS Level-1 (light red banded cover page)
  - b) IMS L-II A (light blue banded cover page)
  - c) IMS L-II B (light maroon banded cover page)
  - d) IMS L-II C (light maroon banded cover page)
  - e) IMS L-III (light green banded cover page)





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**Chapter-8** 

#### **Process Monitoring and Continual Improvement**

(including Self-Assessment, Review & Corrective Action)

- 8.1 AERB fulfills its commitment to maintaining and improving its management system by establishing appropriate management controls, feedback loops, and inculcating well-established values. Management at all levels demonstrates a commitment to the establishment, implementation, assessment and continual improvement of the management system through the processes described in IMS documents.
- 8.2 The activities related to process monitoring and continual improvement is a key activity of the IMS. Management at all levels (Top Management, Senior and Middle Managers) shall regularly monitor and measure progress in the delivery of plans, strategies and budgets and hold to account those responsible for implementation. Such measurement should be against clear targets and timescales so that it can be carried out in a fair and open manner and the same should be reflected in monthly, quarterly and annual reports.
- 8.3 For any process, the expected phases of process execution are 1) Planning, 2) Process implementation, 3) Self-assessment and finally 4) Review and Corrective Action for Improvement. Input from top management and executive committee for improvement in various regulatory and management processes shall be incorporated in appropriate phases of process execution on continual basis by the process owner.
- 8.4 Of all the above said phases of process execution, self-assessment is of prime importance in IMS as it ensures that all other phases which have a direct influence on the efficient and effective implementation of processes are well placed. Hence, all processes should undergo self-assessment by the process executors. The findings of the self-assessment are then reviewed by process owner, senior managers and top management as applicable, for implementation of corrective action. Self –assessment, review and corrective action together constitutes process monitoring.
  - 1. Self-Assessment

With continuous improvement in mind, processes executors perform a formal assessment of their process. Process owners shall ensure that within each block of three years, self-assessment with respect to all the processes of Group/ Directorate/Division is completed by the respective process executors. Self-assessment procedure (L-III document) for each regulatory process shall be developed by respective process owner. The guidance for carrying out self-assessment is covered in IMS Level-IIB document.

#### 2. Review and Corrective Action

"Review & Corrective Action" is carried out for improvement of IMS on the basis of the outcomes of the self-assessment. The various steps involved are as follows:





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#### a) Review and Corrective Action by Process Owner

Based on self-assessment of a particular process the process owner or the responsible director/head takes direct corrective measures in case it is concerned only to the implementation of the process. Such actions or any other corrective/preventive/ improvement action plans are informed to ED.

#### b) Review and Corrective Action by Executive Director

The ED reviews the self-assessment along with the report of the process owner for any corrective action in the planning of the process. Such corrective actions do not impact any other interfacing processes and that is within directorate/divisional resources. In cases where the improvement/corrective measures are linked to other directorate or division's activities they are discussed in the Executive Committee for further actions.

#### c) Review and Corrective Action by Executive Committee

The Executive Committee (EC) of AERB takes stock of information and reports of management actions taken or need to be taken by various Directorates/Divisions periodically. Based of review by EC the Executive Director initiates improvement/corrective measures which involves more than one Directorate/Division.

#### d) Review and Corrective Action by Chairman

Consolidated reports of management activities and improvement measures initiated within AERB are periodically reported to Chairman AERB by the Executive Committee. Chairman AERB along with Executive Director at his/her discretion can hold meetings of all directors/heads to review the effectiveness of IMS, its activities, processes and interfaces. Changes or modifications in the organisations are suggested to improve the efficiency of IMS after such reviews. Outcome of such review will be implemented through Executive Committee.

#### 8.5 Handling of exceptions (non-conformities)

Under exceptional circumstances, deviation from established strategies, processes and procedures can be authorised by the Chairman AERB, Executive Director, AERB and Directors/Heads of Group/Directorate/Division as applicable, on justified and documented grounds.

8.6 The schematic of the process execution and monitoring is given in figure- 3





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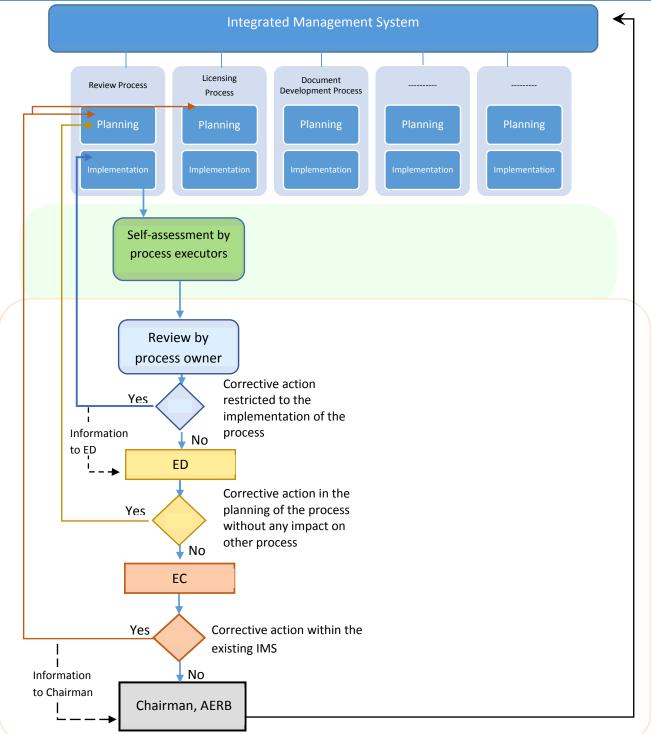


Figure 3: Schematic of Self-Assessment, Review and Corrective Action





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Appendix -A

#### Regulatory Decision Making by the Board and its Delegation to Secretariat

#### **1.0 Development of Regulations**

	Board	Chairman	Executive Director
Development &	Order*, Directive*, Safety	All other Regulatory	
Revision of	Codes, Safety Standards	Documents (Guides,	
Regulations		Manuals)	
Review Level	Tier-I, Tier-II, ACNRS, Board	Tier-I, Tier-II, ACNRS	

<sup>\*</sup>Emanating from legal instruments

#### 2.0 Licensing

	Board	Chairman	Executive Director
Nuclear Power	Siting,	-All major sub-stages	Regulatory Hold
Plants	Start of Civil Construction	-Regulatory hold points*	Points* as specified in
	(FPC),	(RHPs) specified in	licensing condition,
	Commissioning (FAC & initial	licensing conditions to be	Design modification
	operation), Regular	cleared by Chairman	(including fuel and
	Operation,		core configuration)
	Long Term Operation,		which affects the
	Decommissioning and		approach to the
	release from regulatory		compliance of design
	control		code or technical
			specification and/or
			involves potential of
			high radiological
			exposure, permission
			for activities covered
			in licensing basis
			document having high
			safety significance
Review Level	Tier-I, Tier-II, Board	Tier-I, Tier-II	Tier-I, Tier-II

		T	T
Research Reactors	Siting,	Start of Civil	All major sub-
	Release from regulatory	Construction,	stages/regulatory hold
	control after	Commissioning (FAC),	points (RHPs) as
	decommissioning	Operation, Long Term	identified*, campaign
		Operation,	irradiations,
		Decommissioning,	



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			design modification which effects compliance of technical specification and/or involves potential of high radiological exposure
Review Level	Tier-I, Tier-II, Board	Tier-I, Tier-II	Tier-I, Tier-II
U mills with Tailings Pond and HWPs-H₂S based and back- end Fuel Cycle Facilities	Siting, Construction, Commissioning, Operation, Decommissioning	Regulatory hold points* identified by the Board to be cleared by Chairman, Modification (capacity enhancements, change in product mix, etc) within the approved dose constraint	Regulatory Hold Points as specified in licensing condition*, design modification with high safety significance
Review Level	Tier-I, Tier-II, Board	Tier-I, Tier-II	Tier-I, Tier-II
NFC,ZC, Th mills, HWPs-Ammonia based, HWP- HEWAC	-	Siting, Construction, Commissioning, Operation, Modification (change in product mix) and Decommissioning	All regulatory hold points identified*, capacity enhancements, design modification with high safety significance
		Tier-I, Tier-II	3.6.1111601166

Mines, HWB-	-	Mine Development &	capacity
diversified and U		Operation	enhancements within
recovery projects,		Siting, Construction,	the approved dose
ECIL, NORM		Commissioning,	constraint , major
industries with		Operation and	design modification
high radiation		decommissioning	
exposure potential			
Review level	-	Tier-I	Tier-I

Very High Hazard	 Siting,	Intermediate
Potential RF like	Design/ Construction,	Permissions for
	Commissioning, Operation	





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PGF REGULATO.			
Facilities with		and decommissioning, as	activities within an
advance		applicable	approved stage
Technology (eg.		and modifications with	
Facilities of DAE),		major safety implication	
GRAPF, Hadron		, , ,	
Therapy,			
Manufacturing of			
Cat 1 & 2 Sealed			
Source, Fission			
Moly etc.			
Review Level		Tier-I, Tier-II	Tier-I
High Hazard			Licence for Operation
Potential RF such			Licence for Operation
as Facilities using			
Cat-1 sources			
(except GIC &			
GRAPF), Facilities			
for production of			
unsealed sources			
and category 3 to			
5 sealed sources,			
IARPF greater than			
1 MeV			
Review Level			Tier-I
Type approval of		Sealed Sources,	Radiation Equipment
Radiation		Radiation Equipment	Housing Cat 3 to 5,
Equipment/		Housing Cat 1 & 2,	Accelerators between
Radioactive Source		Accelerators above 10	1 to 10 MeV
		MeV	
Review Level		Tier-I or divisional review	Divisional Review
Transport		Package Design Approval-	Shipment Approval for
		Type B, Design of Special	Spent Fuel, Issuance of
		Form Radioactive	NOC for import of Raw
		Material, Special	Nuclear Fuel Material
	İ		i



Arrangement



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		(eg U <sub>3</sub> O <sub>8</sub> etc.) for facilitating transport
Review Level	 Tier-I	Divisional Review
Special		Special permission for
Authorisation for		waste disposal within
Radioactive Waste		the existing
disposal		authorisation
Review Level	 Tier-I, Tier-II	Divisional Review

Utility Document	 	Off-Site (licensee's
Approval		part) and On-Site
		Emergency
		Preparedness Plans,
		Tech Specs for
		Operation, ISI Manual,
		SAMG, EAL, RPP, FSAR
		and other licensing
		basis documents for
		NFs
Review Level#	 	Tier-I, Tier-II

<sup>\*</sup>Review level(s) should be decided by the Nodal division as per the Strategy on Graded Approach for Regulation

# For utility document approval, review levels apply only for Generic documents. For Station/site specific document, review level(s) should be decided by the Nodal division as per the Strategy on Graded Approach for Regulation.

#### 3.0 Enforcement

	Board	Chairman	Executive Director
Enforcement	-	Modification/withdrawal	Suspension of
Actions		of consents/licenses and	operation and/or
		/or initiation of penal	curtailment of
		action	activities pertaining to
			Nuclear and Fuel Cycle
			facilities,
			Very High Hazard
			Potential RF such as
			Facilities with advance
			Technology (eg.
			Facilities of DAE),
			GRAPF, Hadron





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		Therapy,
		Manufacturing of Cate
		1 & 2 Sealed Source,
		Fission Moly etc.
Review Level	Tier-I, Tier-II	Tier-I, Tier-II

#### Note:

- 1) (a) Regulatory decisions which are not mentioned above, the extent of regulatory oversight and decision making levels will be as per the Strategy on Graded Approach for Regulation
  - (b) Documents which are not mentioned (e.g. Monographs, technical documents, etc), their review and approval will be as per strategy for document development
  - (c) Regulatory Documents related to Nuclear Security are approved by Chairman, AERB after review by ACS
- 2) For the licences which are approved by the Board of AERB, the renewal of the same will be granted by Chairman, AERB within the design life. Similarly, the decision for renewal of licences without any change in the licensing condition will be taken at the next lower level.
- 3) For requests for modification of licensing conditions, for the licences which are approved by the Board of AERB, the modification of the licensing condition will be granted by Chairman, AERB. For all others, the decision for modification of licensing condition will be as per the above delegation with respect to initial licence for operation.
- 4) Closure of regulatory action emerging out of any regulatory decision will be by done by the authority who has made such decision.
- 5) Regulatory Inspection
  - Authorizations of Inspectors is by Chairman AERB based on recommendations of Assessment Committee
  - Approval of Annual Inspection Schedule by Executive Director, AERB
  - decision to conduct unannounced inspection in NPP is by Executive Director
- 6) Decision on entering into Agreements at International Level are taken by Chairman, AERB and at National Level Agreements are taken by Executive Director. The Agreement (MoU, etc) are signed by authorized signatory as per protocol.

#### **Legends of Review levels**

Tier-I <sup>#</sup>	Unit level Safety & Security Committees, Standing Committees
Tier –II#	SARCOP, SARCAR, ACPSR, ACS,

for development of regulations, Tier-I is SCRD and Tier-II is the respective Task Forces





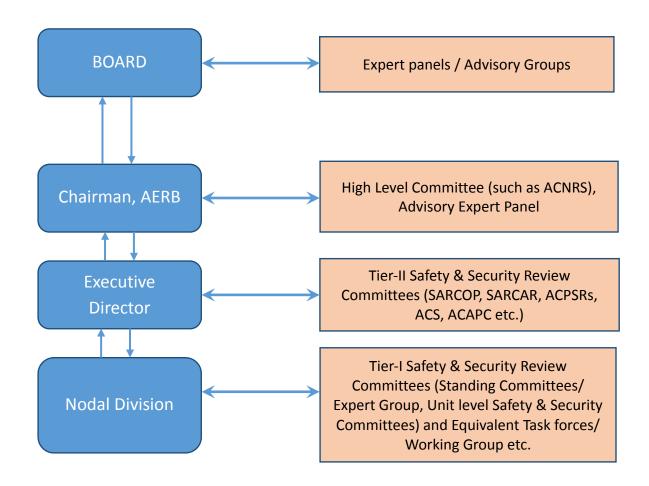
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#### **Appendix-B**

#### Interactions between Authorities in AERB and its committees for Decision Making

#### 1.0 Interactions between AERB and its Committees for Regulatory Processes



- Committees which interact directly at a particular level of Authority are constituted by same level of Authority or higher level of Authority i.e. ACNRS and other Tier II committees constituted by Chairman, AERB while Tier I committees are constituted by ED, AERB.
- Advisory Committee on Nuclear and Radiation Safety (ACNRS) being apex committee for review of regulations is included in high level committee interacting with Chairman, AERB. For development of regulations, Tier-I is SCRD and Tier-II is the respective Task Forces

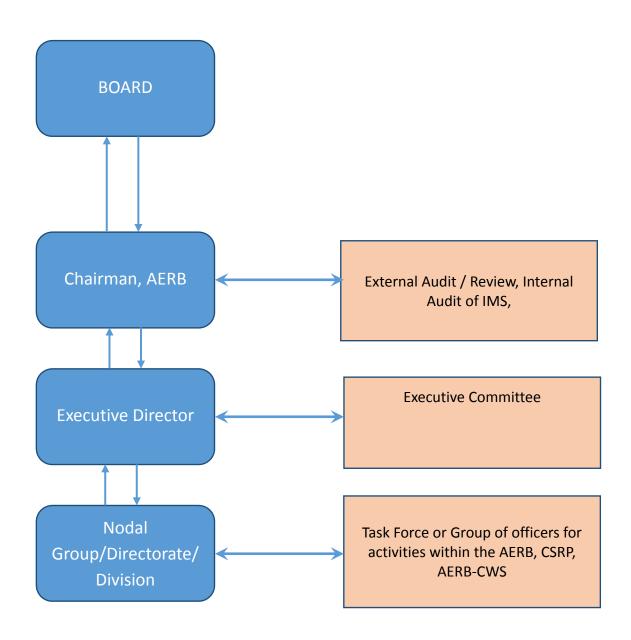




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#### 2.0 <u>Interactions between AERB and its Committees for Management Processes</u>



Committees which interact directly at a particular level of Authority are constituted by same level of Authority or higher level of Authority i.e.EC constituted by Chairman, AERB.



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Annexure-I

#### **Legal Mandate**

#### **Statutory Mandate**

AERB derives its Regulatory Authority from the following Acts and Rules.

#### **Atomic Energy Act and Rules**

The Presidential order (S.O.4772) constituting AERB delegated various safety and regulatory functions under Section 16, 17 and 23 of Atomic Energy Act to AERB. AERB has been entrusted with the responsibility to enforce rules framed under the Atomic Energy Act for radiation safety in the country and industrial safety under the **Factories Act, 1948** in units of DAE (except BARC facilities as per DAE notification dated June 20, 2000 and in mines as per CAC's decision in 2006. The Rules under the Atomic Energy Act for which Chairman, AERB has been designated as the Competent Authority are

- i) Atomic Energy (Radiation Protection) Rules, 2004
- ii) Atomic Energy (Safe Disposal of Radioactive Wastes) Rules, 1987
- iii) Atomic Energy (Working of Mines, Minerals and Handling of Prescribed Substance) Rules, 1984
- iv) Atomic Energy (Factories) Rules, 1996

Atomic Energy Commission had also expanded the scope of functions of AERB by asking AERB to regulate nuclear security aspects which are relevant to safety.

#### **Civil Liability for Nuclear Damage Act, 2010**

Section 3 of the Act mandates AERB to notify nuclear incidents after assessing the gravity of threat and risk involved, and to cause wide publicity of the notification.

#### **Environment Protection Act, 1986 and Rules**

Section 10 and Section11 of the EPA, 1986 empowers AERB for entry and inspection and to collect samples.

Schedule 5 of Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 (amended in 2000) recognises AERB as the concerned authority for enforcement of directions and procedures as per the provisions of the Atomic Energy Act, 1962, particularly w.r.t notification of major accidents, approval and notification of sites, Safety report and safety audit reports, acceptance of On-Site Emergency plans and assisting the District Collector in the preparation of Off-Site emergency plans.

The Hazardous Wastes Management and Handing Rules, 1989 exempts radioactive wastes from its scope as it would be covered under Atomic Energy Act (for which AERB has the necessary mandate to regulate)

#### Air (Prevention & Control of Pollution) Act, 1981

Air Act exempts radioactive air pollution from its scope as it would be covered under Atomic Energy Act (for which AERB has the necessary mandate to regulate).

#### **Atomic Minerals Concession Rules**

The First Schedule of Mines and Minerals (Development & Regulation) Act lists the atomic minerals and AERB has been mandated to regulate the mining of atomic minerals w.r.t. radiological safety under the Atomic Energy Mineral Concession Rules, 2016.





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#### **National Policies**

The requirements specified by AERB would be in accordance with the national policy (on nuclear and radiation safety and radioactive waste management). AERB's requirements are also in consonance with the following related national policies:

- National Environmental Policy framed by MoEF
- National Policy on Safety, Health and Environment at Workplace framed by Ministry of Labour
   & Employment
- National Mineral Policy framed by Ministry of Mines
- BSM Policy 1998 framed by DAE
- National Policy on Disaster Management, 2009, Ministry of Home Affairs
- National Foreign Trade Policy (Exim Policy) framed by DGFT, Ministry of Commerce and Industry
- Integrated Energy Policy, 2006 framed by Planning Commission of India

#### **International Obligations**

AERB is duty bound to discharge its assigned responsibilities in fulfillment of the following international obligations dealing with nuclear & radiation safety and security aspects:

- Convention on Nuclear Safety (INFCIRC/449) and Vienna Declaration on Nuclear Safety (INFCIRC/872)
- Convention on Early Notification of a Nuclear Accident (INFCIRC/335)
- Convention on Assistance in the case of a Nuclear Accident or Radiological Emergency (INFCIRC/336)
- Convention on the Physical Protection of Nuclear Material (INFCIRC/274)-and its 2005 amendment
- IAEA Code of Conduct on the Safety and Security of Radioactive Sources and Illicit Trafficking Data Base (ITDB)
- IAEA Code of Conduct on the Safety of Research Reactors
- IAEA Guidance on the Import and Export of Radioactive Sources
- ILO Radiation Protection Convention (C-115)

#### **Other Obligations**

The management of AERB is committed to performance of the various obligations it has entered into, with national as well as international agencies, namely

- Bilateral Arrangements with International regulatory bodies and their TSOs
- Multilateral agreements
- MoUs with TSOs, Academic Institutes, Universities, Professional Bodies/agencies, State Governments for setting up of Directorate of Radiation Safety (DRS), etc.
- Reporting of events in INES, IRS and FINAS etc.

#### **Citizen Centric Administration Mandate**

AERB is obliged to maintain high level of transparency and accountability in functioning through various citizen centric administration mandate assigned to it:





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#### Right to Information Act, 2005

Under this Act, access to information from a public agency has become a statutory right of every citizen. The management of AERB is committed to disclosure of all relevant information in public domain as is permissible under the Act.

#### **Citizen Charter for Public Grievance Redressal**

Department of Administrative Reforms and Public Grievances has issued policy guidelines for all Government departments to institute mechanism for redressal of public grievances. In this regard the management of AERB is bound by its citizen charter which represents the commitment of the management of AERB towards standard, quality and time frame of service delivery, grievance redress mechanism, transparency and accountability.

#### **National Litigation Policy**

Government of India has framed a National Litigation Policy with a view to ensure conduct of responsible litigation by all Central Government organisations. The Management of AERB is committed to the guidelines laid down in this policy w.r.t pleadings/counters, adjournments, representation, appeals, review etc.

#### **Office Management Mandate**

#### **Establishment related matters**

It is obligatory on the part of the management of AERB to comply with the establishment related requirements as outlined in various statutes, Central Civil Services Rules, and Departmental Orders such as those related to

- Security arrangements including information security under Information Technology Act, 2000 and security of official information & documents
- Purchase & Procurement
- DAK /File / Records Management
- Departmental Communication

#### **Employee related matters**

The management of AERB ensures that all its employees and staff respect and adhere to the Code of Ethics while carrying out day to day activities in the organisation. The management of AERB is committed to ensure adherence of the provisions of following statutes which deal with honesty, integrity ethics, and conduct of its employees

- The Central Vigilance Commission Act, 2003
- The Prevention of Corruption Act, 1988
- The Whistle Blowers Protection Act, 2011
- The Lokpal and Lokayuktas Act, 2013
- Income Tax Act, 1995
- The Sexual Harassment of Women at Workplace (Prevention, Prohibition & Redressal) Act,
   2013
- Central Civil Services (Conduct) Rules, 1964
- Central Civil Services (Classification, Control and Appeal) Rules, 1965
- IPC, CrPC, etc.

The Management of AERB is committed to ensure that its staff abide by their service conditions and enjoy the allowances, privileges, perks, incentives and other welfare and recreation amenities as admissible by Government Rules (CCS, GFR etc.), instructions and Departmental Schemes.





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**Annexure-II** 

#### Responsibilities and Authorities of Officers in the Secretariat

#### **Chairman AERB**

#### Responsibilities

#### **Management System**

- Shall demonstrate and adhere to high order of leadership for safety and security. And in turn
  establish the same expectation from among all senior members of AERB Secretariat fostering a
  strong safety culture and code of ethics.
- Chairman is responsible for establishing an integrated management system for effective conduct of various regulatory processes that help in achieving the mission, goal and objectives of safety, health, protection of environment, security and quality.
- Chairman is responsible to monitor that the performance of AERB with respect to the processes, responsibilities, effective operation of interfaces within and with external agencies, accountabilities at different levels of authority are as per IMS. Based on such assessments at planned intervals improvements, if found necessary, in human and organisational factors, safety culture and other processes of IMS will be instituted. Independent reviews in form of external audit for this purpose may also be considered.

#### Resource Management

- Ensures that AERB develops and promulgates, its basic tools, the regulatory requirements and guidance through safety documents for nuclear and radiation facilities. It continues to follow a systematic programme to periodically revise or develop new documents based on requirements identified during consenting and enforcement process, and to reflect new regulatory and technological developments including international safety principles and good practices.
- Periodically reviews the feedback on the competences and human resources necessary to carry
  out the activities of AERB as per prevailing strategy and plan. Chairman shall organise the
  availability of these resources and ensure that an appropriate strategy for manpower induction,
  competence development, knowledge management, and training of its Secretariat exists and is
  followed. Similarly, identification and availability of external additional expert resources from
  TSOs, consultants, advisors to achieve overall competence in meeting the goals, strategies, plans
  and objectives of AERB is reviewed by Chairman.
- Assesses and finalises the annual budget as well as long term plan financial requirement based on inputs from various Directorates of Secretariat to carry out their functions and arrange to put it to the Atomic Energy Commission with a view to include the same in Government's budget.





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#### **Administrative and Financial Authority of Chairman**

- The Chairman has full powers of the Head of a Department under the Delegation of Financial Power Rules, Supplementary Rules. General Financial Rules, General Provident Fund Rules, Contributory Provident Fund Rules, Treasury Rules and other relevant orders issued from time to time. For administrative convenience, the Chairman of the Board, who has been vested with the executive functions of the Secretariat, further delegates some of the administrative and financial powers, as are re-delegatable, to other officers in the Secretariat with due regard to their levels of responsibilities. However, powers for appropriation and re-appropriation of funds and powers to approve capital budget expenditure for new projects and revenue budget for fresh non-planned initiative is retained with Chairman only. The Chairman of the Board, who is vested with the executive functions of the Secretariat, will exercise the administrative and financial powers under Exercise of Financial Powers (DAE) Rules, 1978 as per Central Government Order No. 18/1(1)/97-ER/1165 dated June 6, 1997 and its subsequent amendments.
- Appellate Authority for disciplinary actions against Group B employees of AERB under CCS(CCA)
   Rules.
- Establishes the organisational setup structure of the Secretariat with job responsibilities and get it approved from the Board and may carry out any re-allocation of divisional responsibilities as deemed necessary, under intimation to the Board.
- Approves the allocation of manpower to various Groups/Directorates/Division in the Secretariat and their internal transfers.
- Constitutes high level committees, expert panel/groups, tier-II Committees, etc. (SARCOP, SARCAR, ACPSR and Advisory Committees like ACNRS, ACS, etc.)
- Decides on international deputation of its staff
- Constitutes Executive Committee -The Executive Committee periodically monitors and reviews
  the effectiveness of all regulatory processes. Executive Committee may identify development of
  certain policies for specific processes and activities.
- May convene meetings from time to time with Executive Director and Heads of Directorates/Divisions to provide any specific guidance on a policy related matter or to take stock of the activities in hand and management related issues.
- May permit any deviation from IMS in case of any exigencies or demanding situation. In case such deviation contradicts IMS Level-1 document, it shall be informed to the Board

#### **Executive Director**

#### Responsibilities

Executive Director is primarily responsible for overseeing the implementation of strategies of the management system as framed by Chairman of the Board. Executive Director, in particular ensures that complexities of the processes, the interdependences and interactions between various processes are identified and accordingly plans and procedures are formulated. He ensures that the grading of the management system is maintained by prioritising safety issues for optimal regulatory attention and resource utilisation. He conducts periodical assessment of effectiveness of all regulatory processes and accordingly proposes necessary management actions to be implemented by Chairman, AERB. Executive Director aids the Chairman, who is vested with the executive functions of the Secretariat, in management of financial and human resources, formulation of Long Term financial plans, Annual Budget and performance related Targets and Reports.





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As ex officio member of the Board, Executive Director can also act as an interface between DAE and the Board, if necessary.

#### Administrative and Financial Authority of Executive Director

- Chairman AERB, who is vested with the executive functions of the Secretariat, delegates such
  administrative and financial authority from time to time to Executive Director so as to enable him
  discharge the responsibilities efficiently. Normally, powers to approve capital budget expenditure
  for modification activities and revenue budget expenditure for routine activities will be totally
  exercised by Executive Director. Executive Director can be self-controlling authority for his/her
  domestic tours but for international tours, prior approval has to be obtained from Chairman, AERB.
- In the absence of Chairman, AERB, Executive Director may exercise the financial and administrative authority which are beyond the delegated powers subject to Ex-Post facto approval from Chairman, AERB, except those requiring
  - o Appropriation and re-appropriation of funds
  - Major Re-organisation of the Secretariat
  - o Finalisation of the financial budget
- Executive Director is designated as the Appellate Authority for disciplinary actions against Group C employees of AERB and appointing and disciplinary authority for Group B employees of AERB under CCS(CCA) Rules
- Executive Director establishes the sections, cells, wings, etc within the approved Divisional structure.
- Executive Director controls participation in workshops, technical meetings, seminars, training etc. within India
- Executive Director constitutes tier-I Unit level safety Review Committees for regulatory activities, sub Committees, Task Force, Working Groups as necessary for functioning of the Secretariat

#### **Executive Committee**

Executive Committee is constituted by Chairman, AERB to aid in the management and administrative decision making process. It is headed by Executive Director and consists of Directors of Groups, Heads of Directorates and Divisions. Chief Administrative Officer serves as Secretary of the Committee. Executive Committee may nominate a Senior Officer as Technical Secretary.

Proposals pertaining to the following shall be brought before the Executive Committee:

- Matters related to development, implementation and supervision of IMS
- Organisational matters related to functioning of AERB, including but not limited to human resource planning and development (recruitment, training, rotation, deputation), infrastructure, international activities, budget, annual performance targets and reports
- Office administration matters (RTI, OLI, disaster management, purchase & procurement, transport, service and establishment, etc)





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Executive Committee may constitute sub-committees for specific areas of management functioning consisting of employees from various divisions having suitable experience and expertise in the subject domain.

Recommendations of EC will be endorsed by ED or Chairman, AERB as per delegation for subsequent implementation.

#### **Director of Groups**

#### Responsibilities

The responsibilities of Director of a Group shall be to the extent of overseeing the functioning of the Divisions under the Group and shall be primarily responsible for implementation of plans and procedures for the regulatory processes of the divisions under the Group and coordinate and interact with other divisions/directorates for interdependencies. He shall also aid Executive Director in formulating Long Term plans related to manpower requirement, competency development and finance, Annual Budget and performance related Targets and reports.

#### **Administrative and Financial Authority**

Chairman AERB, who is vested with the executive functions of the Secretariat, delegates such administrative and financial authority to Group Director from time to time so as to enable him discharge the responsibilities efficiently. Normally, Group Director can be the self-controlling authority of domestic tours but for international tours, approval needs to be obtained from Chairman, AERB on recommendation of Executive Director, AERB.

In the absence of Chairman, AERB as well as Executive Director, the senior-most Group Director shall be responsible for coordinating the day to day functioning of the Secretariat and shall act as an interface between Govt. of India and the Board, if necessary. During such instances, senior most Group Director can exercise the financial and administrative authority of that of Executive Director subject to Ex-Post facto approval.

Group Directors can constitute Task Force for specific activities with members from outside AERB with the concurrence of Executive Director, AERB.

#### **Head of Directorates/Divisions**

#### Responsibilities

Head of Directorate works under the supervision of the Executive Director whereas Head of Division works under the supervision of Group Director and in cases where the Division is not under any Group, the Head of the Division works directly under supervision of Executive Director, AERB or Chairman, AERB as per the organisational framework. The major responsibility of Head of Directorates/Divisions is formulation of plans and procedures in line with the functional responsibilities of the Division/Directorate and execution of the approved procedures within the division. He has the responsibility for maintaining proper interface with other divisions/directorates as per the approved strategy for implementation of management system as well as with the regulated installations falling under the functional domain of the division. He shall coordinate all activities w.r.t performance assessment within the Division/Directorate and effect the implementation of management actions arising out of periodic assessment. He shall also aid Group Director/Executive Director





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(as the case may be) in formulation of Long Term plans related to manpower requirement, competency development and finance, Annual Budget and performance related Targets and reports.

#### **Administrative and Financial Authority**

Chairman AERB, who is vested with the executive functions of the Secretariat, delegates such administrative and financial authority to Heads of Division/Directorates from time to time so as to enable him discharge the responsibilities efficiently. Normally, Heads of Divisions shall have the powers to approve domestic tours of section head/ officers and staff of division and authorised to exercise powers for any pre-planned sanction under the Revenue budget.

Head, R&DD at Headquarter; Head, SRI at Kalpakkam and respective Heads/OICs of RRCs may be delegated additional administrative and financial authority to facilitate day to day functioning of the organisation.

Heads of Divisions/Directorates can constitute task forces for specific activities with internal members of AERB.

#### **Heads of Sections/Officer In Charges**

#### Responsibilities

Section Head /Officer-In-Charge is responsible for implementation of the plans/procedures at sectional level. This includes collecting inputs from the section and coordinate with the Head of Division / Directorate. He shall be responsible to get the proposals and periodic reports submitted by utilities reviewed within his section. He may ask for supplementary/additional information from applicant for the ongoing safety review proposals and also communicates the regulatory decision to concerned entities.

#### Administrative and Financial Authority

Chairman AERB, who is vested with the executive functions of the Secretariat, delegates such administrative and financial authority to Heads of Sections / Officer In Charges from time to time so as to enable them discharge the responsibilities efficiently. Powers to approve cash purchase and office entertainment and such other activities which does not require secretarial assistance may be delegated up to Section Heads/OIC level by Chairman, AERB.

Heads/OIC of Regional Centres may be delegated additional administrative and financial authority to facilitate day to day functioning of the regional centres.

#### **Chief Administrative Officer**

#### **Responsibilities and Authorities**

The Chief Administrative Officer is responsible for overall coordination and execution of Administrative and Establishment matters in AERB, which includes activities like Recruitment, Promotion, Personnel, Welfare, Official Language Implementation, Communication, including telephones and fax, Security & Transport arrangements.





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Chairman AERB, who is vested with the executive functions of the Secretariat, delegates such administrative and financial powers to CAO from time to time so as to enable him/her discharging the responsibilities efficiently. The powers presently delegated to CAO is as per the order No.CH/AERB/FP/06/2018/58 dated December 10, 2018.

CAO acts as the staff Grievance Officer to deal with the grievances of officers and staff of AERB and Liaison Officer for SC/ST to deal with the grievances of employees belonging to SC/ST communities. CAO is designated as the Appointing/Disciplinary Authority for Group C posts in AERB, who is assisted by AO-III, APOs and ADOL. CAO may further distributes the responsibilities to various officers within Administration Division for administrative convenience and also supervises the functions of Accounts Division through Deputy Controller of Accounts.

#### **Deputy Controller of Accounts**

#### **Responsibilities and Authorities**

Deputy Controller of Accounts assists and advises Management of AERB in all financial matters and is responsible for overall supervision of payments and accounting functions of AERB. DCA ensures that all accounting allocations are appropriately made and documented and oversees accounts payable, accounts receivable, cash disbursements and pay roll functions. DCA assists in preparation of budget estimates and monitors expenditures with reference to budget estimates and reviews Audit Para. DCA is assisted by Pay and Accounts Officer and technically reports to CAO. DCA may further distribute the responsibilities to various officers within Accounts Division for administrative convenience.

#### **Special Portfolios**

#### Authorities under RTI Act

#### **Central Public Information Officer:**

- (i) to deal with requests from persons seeking information and render reasonable assistance to the persons seeking such information, taking the assistance of any other officer, if considered necessary by him or her for the proper discharge of duties [Section 5(3) & 5(4)];
- (ii) to render 'all reasonable assistance', where request for information cannot be made in writing, to the person making the request orally to reduce the same into writing [Section 6(1)];
- (iii) to dispose request for information under the Act, either providing the information requested on payment of prescribed fee or rejecting the request for reasons to be specified within the time period stipulated under the Act [Section 7(1)].

**Central Assistant Public Information Officer:** To receive applications for information or appeals under the Act for forwarding the same forthwith to the Central Public Information Officer or Appellate Officer or the Central Information Commission or the State Information Commission, as the case may be [Section 5 (2)].

**Transparency Officer:** It is an internal administrative arrangement within AERB for promotion of institutional transparency. Transparency officer is connected with promotion of institutional transparency commensurate with the letter and spirit of the RTI Act. He shall constantly remain in





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touch with the management about the strategy and the action to promote good management practices within the organisation centered on transparency. A CPIO will be free to seek guidance from the Transparency Officer about disclosure-norms – both in its general and specific aspects. Appellate Authority: To decide on appeals preferred against the information provided by CPIO/CAPIO [Section 19]

CPIO, CAPIO, Transparency officer shall work in close coordination with Head, DRA&C.

Public Grievance Officer-shall be actively involved in the process of dealing with grievances and shall be nodal point of contact to receive complaints/grievances from outside AERB. He will take decisions on grievances which are pending for more than three months. He will evolve procedures as part of integrated management system which are necessary for monitoring the public grievances and their redressal. On the basis of the data made available to him through the management system, the Grievance Officer will identify areas of recurring grievances, analyse underlying cases, suggest commissioning of appropriate studies, where necessary, for systemic/procedural corrections, cause review of policies/procedures which are identified as sources of grievances. He will prepare an annual report which would inter-alia, highlight responsiveness and accountability achieved at all levels.

Head, DRAC shall act as the Public Grievance Officer for AERB.

- Vigilance Officer Vigilance functions to be performed by the Vigilance Officer are of wide sweep and include collecting intelligence about the corrupt practices committed, or likely to be committed by the employees of his organisation; investigating or causing an investigation to be made into verifiable allegations reported to him; processing investigation reports for further consideration of the disciplinary authority concerned; referring the matters to the Commission for advice wherever necessary, taking steps to prevent commission of improper practices/misconducts, etc. Thus, the CVO's functions can broadly be divided into three parts, viz. (i) Preventive vigilance; (ii) Punitive vigilance; and (iii) Surveillance and detection
- Officer In Charge for Legal Matters shall provide advice on legal matters and shall be responsible for functioning of legal Cell of AERB, for coordination with the concerned divisions, when required and also with external legal experts/consultants/agency.

N.B:

Top Management consists of Chairman, AERB, who is the Head of the Secretariat and the Executive Director, AERB.

Senior Managers include Group Directors and Heads of Directorates/Divisions Middle Level Managers include Section Heads and OICs.





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Annexure-III

#### **Typical List of IMS Level-II and Level-III documents**

Level II A (REGULATORY PROCESSES)		
Strategy & Plan for Implementation of Regulatory Processes in OPSD	Safety Review and Assessment	
	Licensing	
	Enforcement	
	Stakeholder Consultation	
Strategy & Plan for Implementation of Regulatory Processes in NPSD	Safety Review and Assessment	
	Licensing	
	Enforcement	
	Stakeholder Consultation	
Strategy & Plan for Implementation of Regulatory Processes in RSD	Safety Review	
	Licensing	
	Enforcement	
	Stakeholder Consultation	
Strategy & Plan for Implementation of Regulatory Processes in DRI	Regulatory Inspection	
	On-Spot Enforcement during Regulatory Inspection	
Strategy & Plan for Implementation of Regulatory Processes in DRP&E	Monitoring Emergency Preparedness and Response	
	Safety Review and Assessment w.r.t Waste Management, radiation Protection and Emergency Preparedness	
	Stakeholder Consultation	





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Strategy & Plan for Implementation of Regulatory Processes in DRA&C	Public Communication and
	Outreach
	National Coordination
	International Cooperation
Strategy & Plan for Implementation of Regulatory Processes in Rⅅ	Development of Safety
	Regulations
	Stakeholder Consultation
Stratogy & Dian for Implementation of Degulatory Processes in NSAPC	Pagulatan/Safaty research and
Strategy & Plan for Implementation of Regulatory Processes in NSARG	Regulatory/Safety research and
	analysis
	Promotion of safety research
	through CSRP
Strategy & Plan for Implementation of Regulatory Processes by Legal	Legal Support
Cell	

LEVEL II A (MANAGEMENT PROCESSES)	
Policy, Strategy & Plan for Implementation of Management Process in	Resource Management
AERB	Organisational Climate
(Coordinated by Rⅅ)	Management
	IMS Documentation and Control
	Supervision of IMS





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#### LEVEL II B (STRATEGIES SUPPORTING REGULATORY PROCESSES)

- 1. Strategy for Implementation of Graded Approach in Safety Regulation
- 2. Strategy for Enhancing Transparency & Accountability in Functioning of AERB
- 3. Guidelines for Regulatory Experience feedback for Improving Core Regulatory Processes
- 4. Guidelines for Establishing Multitier Review Mechanism for Decision Making
- 5. Protocol for Effective Communication within AERB
- 6. Protocol for Effective Communication with external agencies
- 7. Strategy & Criteria for Management of Process Records and Information
- 8. Guidelines for Process Monitoring and Continual Improvement
- 9. Guidelines for Promotion of Safety Awareness among Interested parties

#### LEVEL II C (PROCEDURES FOR MATTERS RELATED TO OFFICE ADMINISTRATION)

- 1. Procedure for Official Language Implementation
- 2. Procedure for dealing with Legal matters related to office administration
- 3. Procedure for Vigilance and disciplinary matters
- 4. Procedure for handling Internal complaint & representation
- 5. Procedure for handling Security Matters (physical security)
- 6. Procedure for Disaster Management in office premises
- 7. Procedure for Awards & Incentives
- 8. Procedure for Purchase & procurement matters
- 9. Procedure for Welfare & recreation matters
- 10. Procedure for dealing with Establishment and employment/ service matters
- 11. Procedure related to Transport and contract
- 12. Procedure for handling Account related matters





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### **Level-III procedures**

(The list is indicative only, individual Division/Directorate may issue Level-III document in accordance with the processes and activities conducted by them.)

A. Generic Level-III procedures		
1.	Organisational Framework	
2.	Management of interfacing with other divisions	
3.	Monitoring and tracking of work progress	
4.	Divisional level RIMP procedures (Maintaining filing system & file register, Maintaining process records and information)	
5.	Safety Promotion among interested parties (according to Division's mandate)	

B. Division/Directorate Specific List of Level-III procedures excluding the Generic Level-III procedures		
B.I. Nuclear Projects Safety Division (NPSD)		
1.	Safety Review and Assessment	
2.	Licensing of Nuclear Projects	
3.	Enforcement Action	
4.	Guidance for Categorizartion of Safety Issues in Nuclear Facility Projects	
5.	Review of Reportable Accidents and Accidents of Serious Nature including fatality	
6.	Review of SER/ER & events other than TS (O) during Plant Commissioning	
7.	Assessment of Safety Culture of Nuclear Projects	
B.II. Operating Plants Safety Division (OPSD)		
1.	Safety review & assessment for modification proposals	
2.	Safety review & assessment for events including fatality	
3.	Licensing/ authorisation of operating nuclear facilities	
4.	Licensing of operating personnel & certification for senior management positions at NPP	





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TGY REGUL	
5.	Enforcement actions
6.	Operating experience, safety culture & safety performance indicators.
7.	Procedure for follow up of regulatory actions.
D III	I. Radiological Safety Division(RSD)
1.	Safety Review of RFs
2.	Review and disposal of excessive exposure cases reported from radiation facilities
3.	Consenting process of radiation facilities
4.	Review and type approval of X-ray based equipment for industrial and research purpose.
5.	Handling of reported loss of radioactive source
6.	Implementing new regulatory requirement in existing RFs
7.	Enforcement Action in RFs
B.IV. Directorate of Radiation Protection & Environment(DRP&E)	
1.	Operation of AERB Emergency Response Monitoring Organisation
2.	Review of Periodic Reports w.r.t Radiation Protection, Radioactive Waste Management & Environmental Surveillance
3.	Review of Proposal for Authorization for Safe Disposal / Transfer of Radioactive Wastes For DAE Facilities Regulated by AERB
4.	Review of Emergency Preparedness and Response Manuals
5.	Procedure for review of Radiation Protection Procedure Manual (RPM)
6.	Procedure for Review of Exposure Investigation Reports
7.	Procedure for Review of Emergency Exercise Reports of Operating NPPs & Nuclear Fuel Cycle Facilities
B.V. Directorate of Regulatory Inspection(DRI)	
1.	Development of Regulatory Inspection Programme of Nuclear & Radiation Facilities





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2.	Conducting Regulatory Inspections of Nuclear & Radiation Facilities (Announced and	
	Unannounced)	
3.	Authorization of Inspectors for Nuclear & Radiation Facilities	
4.	Conducting Campaign based inspections for enforcement in non-compliant Diagnostic Radiology	
	Facilities	
5.	Site Observer programme of AERB	
6.	Guidelines on Safety Significance based Categorisation of inspection Findings of Radiation Facilities	
7.	On spot Enforcement actions	
B.VI	I. Nuclear Safety Analysis and Research Group(NSARG)	
1.	Procedure to carry out Review of Safety Analyses performed by Licensee/ Applicants or by TSO (on their behalf)	
2.	Procedure to carry out Safety Analysis and safety related R&D at Nuclear Safety Analysis and Research Group (NSARG)	
3.	Procedure for In-house Experimental Studies by Nuclear Safety Analysis and Research Group (NSARG)	
4.	Procedure to coordinate the conduct of experimental/analytical studies by other institutions	
5.	Utilization of operating experience feedback in the activities of NSARG	
B.VII. Directorate of Regulatory Affairs and Communications(DRAC)		
1.	Implementation of process to enter into international cooperation/coordination agreements	
2.	Hosting of activities under international cooperation /coordination agreements.	
3.	National Coordination with relevant agencies	
4.	Communication with external agencies	
5.	Public communication and outreach activities	
B.VIII. Resources and Documentation Division(Rⅅ)		
1.	Development and Revision of Safety Regulations (regdocs, Orders, Directives, etc)	





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2.	Resource Management (human resource- recruitment, placement & rotation, competency		
	development, knowledge management , financial resource- Budget proposal and allocation		
	Infrastructure including IT and cyber security)		
3.	Organisational Climate Management (implementation of graded approach, safety culture		
	assessment, and organisation change management)		
4.	Review of Draft IAEA Safety, Security Standards, Guides and DPPs		
5.	Supervision of IMS		
6.	IMS Documentation and Control		
7.	Annual Report, AERB Bulletin, e-Newsletter PRIS-G Activities		





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**Annexure-IV** 

#### <u>Historical Account of Implementation of Integrated Management System in AERB</u>

AERB's organisational structure was gradually evolved and strengthened over the years to discharge the functional responsibilities in a responsible manner. AERB had progressively established its regulatory processes commensurate with the given mandate. Although, the Management System of AERB was not specifically designed to meet any national or international quality management standards, the elements of IAEA GS-R-3 were already embedded in the Management System of AERB.

In the year 2006, for the purpose of conducting external scrutiny and certification, AERB chose to adopt Quality Standard of ISO: 9000. As part of compliance to ISO: 9000, the AERB's quality management system (QMS) focussed on integrating three main processes namely (1) Document Development, (2) Consenting and (3) Regulatory Inspection process. Other regulatory processes (like Safety review, Safety Research, Emergency Monitoring, etc.) and management processes remained out of AERB's QMS.

In the year 2013, as part of India's preparation for IAEA IRRS mission, AERB started to conduct its self-assessment in line with the IAEA's guidance on Self Assessment of Regulatory Infrastructure for Safety (SARIS). It was observed that to fulfil certain requirements under GSR part-1 and GS-R-3, integration of various regulatory and management processes of AERB is essential. AERB gradually started developing interfaces between various processes to integrate them under Integrated Management System (IMS) following GS-R-3 approach. However, as QMS and certification under ISO 9000 through internal audit and external scrutiny was well established in AERB, it continued to co-exist with IMS which was under development.

In year 2015, during its peer review mission, the IRRS team observed the above aspect and recommended that "The AERB should finalize and fully implement its integrated management system (IMS), based on GS-R-3. In year 2016, IAEA published the GSR Part 2 on "Leadership and Management for Safety" which superseded the GS-R-3. As IAEA Standards are the reference document for IRRS peer Review Mission, action was initiated to further increase QMS scope and structure it in line with IAEA's GSR Part 2 document. The IAEA GSR Part-2, though includes regulatory bodies in its scope, the content of the document refers mostly to the functions and processes of licensee organisation. Further, for implementing requirements of IAEA GSR Part-2, the guide available was IAEA GSG 3.1 which again is applicable for Nuclear Facilities and Activities.

In June 2016, Executive Director, AERB constituted a Working Group for formulation of internal procedures of AERB vide reference No. AERB/ED/1/01012/2016/25 dated June 7, 2016. The intent of formulating 'internal procedures' was to have at one place the complete sets of procedures required for smooth and efficient functioning of AERB in a seamless manner. In view of IRRS mission recommendation, in January 2017, a Task Force for development and implementation of Integrated Management System was constituted by Chairman, AERB vide ref CH/AERB/IMS/2017. The Task Force identified the gaps in existing management systems against GSR Part-2. Subsequently, in July 2017, Chairman, AERB constituted a Committee for preparing Integrated Management System for the activities of AERB vide ref CH/AERB/COMM/25/49. The Committee considered the outcome of the work done by the previous Working Group and Task Force.





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In parallel, AERB initiated a programme to strengthen its processes and concurrently develop and integrate all the internal procedures for its coherent functioning. Necessary changes in organisational structure were also made to meet this objective. Some of the key improvements effected in view of this exercise were as follows, which were briefed to the Board periodically from Board meeting No.119 onwards:

- (i) strengthening the internal review process and making staff of AERB accountable for the regulatory decisions and Safety Committees were made recommendatory including SARCOP;
- (ii) criteria for formation of multi-tier safety review committees was evolved such that the decision making is inclusive, participative yet not intrusive taking into account conflict of interest, the number of safety committees were optimised (earlier recommended by Raja Ramanna Committee constituted by Chairman, AEC for review of the functioning of AERB);
- (iii) document development process, licensing process, regulatory inspection process, management of off-site emergency was streamlined
- (iv) annual programme for obtaining regulatory experience feedback from licensee organisation was instituted,
- (v) regulatory interfaces with national agencies for management of cross-cutting areas were strengthened,
- (vi) HRD programmes (promotion, competence building, knowledge management) were evolved/streamlined

This step facilitated better understanding of interfaces of regulatory processes and thereby helped in development of formal IMS fulfilling all the applicable requirements from GSR Part-2. The IMS development included (1) identification of regulatory processes in alignment to AERB's mission, vision and mandate; management processes to fulfil organisational expectations; and activities for administrative support, (2) classifying and categorising processes and providing management expectations, (3) analysing organisational framework and allocation of responsibilities and authorities for implementing the processes. The IMS brought all the processes and activities under its purview into single framework. Periodic assessment of IMS and its processes is required to be performed in order to identify opportunities for improvements and using those opportunities to strengthen its processes. This activity was built into AERB's IMS with the provision for periodic audits, self-assessment, review and corrective measures. Integrated management system was implemented through a series of documents arranged in three levels of hierarchy viz IMS L-1, L-II & L-III. This hierarchy is based on modular approach considering the distributed responsibility and ease in implementability.

The Board of AERB reviewed and approved the IMS Level-I document for its implementation in the 123<sup>rd</sup> meeting of the Board held on March 28, 2018. The Board complimented Chairman and ED, AERB for bringing out a comprehensive document on the management system of AERB as it brought better clarity with respect to the functioning of AERB and the exercise of authority by the key functionaries. Consequent to the establishment of IMS, AERB withdrew its ISO-QMS programme as the basic premise on which it is founded is customer satisfaction, which after detailed deliberation was found not suited with the mission and mandate of AERB.

Based on experience gained and challenges faced during the implementation of IMS, the need was felt for rearrangement of contents and some additions towards completeness and more coherent operation of various processes. Accordingly, in January 2020, the IMS Committee was directed by Executive Director, AERB and revision of IMS Level-1 was taken up addressing the following major aspects:

- (1) Rearrangement of organisational policies and aligning organisational strategies with them;
- (2) Including process governing policies which come under purview of the Board;





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- (3) Spelling out strategies necessary for supporting regulatory processes;
- (4) Incorporating a chapter on systematic approach for decision making;
- (5) Providing more clarity on (a) audit of IMS implementation and (B) Self-assessment of individual processes.

Recently, IAEA published documents on "Organisation, Management and Staffing of the Regulatory Body for Safety, GSG 12" and "Functions and Processes of the Regulatory Body for Safety, GSG 13" A comparative study of IMS with these IAEA documents was also carried out and was mostly found to be in agreement with a minor need for recategorisation of certain activities as associated regulatory processes. These changes have now been incorporated in revised Level-1 of IMS.

The document was further reviewed at divisional levels and suggestions were also sought from all officers in AERB and these were appropriately incorporated. Subsequently, Executive Committee (EC) of AERB extensively examined and reviewed the document in series of meetings. During EC, it was confirmed that the proposed delegation is in accordance with previous Board deliberations (meeting no. 36, 103, 108, 115) and the review levels are in line with AERB/SG/G-1, G-2 and G-3.

The Level-1 of IMS (Revision-1) was approved by the Board to address above areas and findings. Consequent to the revision of IMS L-1 document, necessary changes were incorporated in Level-II and in Level-III documents of IMS.





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#### **ACKNOWLEDGEMENT**

The Committee for preparing Integrated Management System (IMS) for the activities of AERB [hereinafter referred as IMS Committee] expresses its sincere thanks and appreciation to Shri Dinesh Kumar Shukla, Executive Director, AERB for continual support and guidance in development and updation of the IMS Level-I document.

IMS Committee is grateful to all employees and staff of AERB for providing valuable experience feedback and comments on implementation of IMS in AERB. Special thanks to Group Directors and HoDs for their critical review of IMS document and making necessary corrections to make this document more practical and user friendly. IMS Committee also acknowledges the contribution of Executive Committee (EC) of AERB for the significant value addition made during the extensive review of the document in series of meetings.

Thanks are also due to all members of IMS Committee for taking up the challenging task of revision and updation of IMS under the guidance of Shri C. S. Varghese, Director, NFRG, and in particular to Shri Soumen Sinha and Smt Soumya Varghese for their dedication and commitment towards the activity.

IMS Committee also places on record its indebtedness for Shri G. Nageswara Rao, Chairman, AERB for his inspiration and motivation in completing the task in a structured and timely manner.

Last but not the least, the Secretariat of AERB expresses its gratitude to the members of the Board of AERB for their guidance and encouragement during the continual strengthening of the organisational framework of AERB and subsequent implementation of Integrated Management System.

**Convener, IMS Committee** 

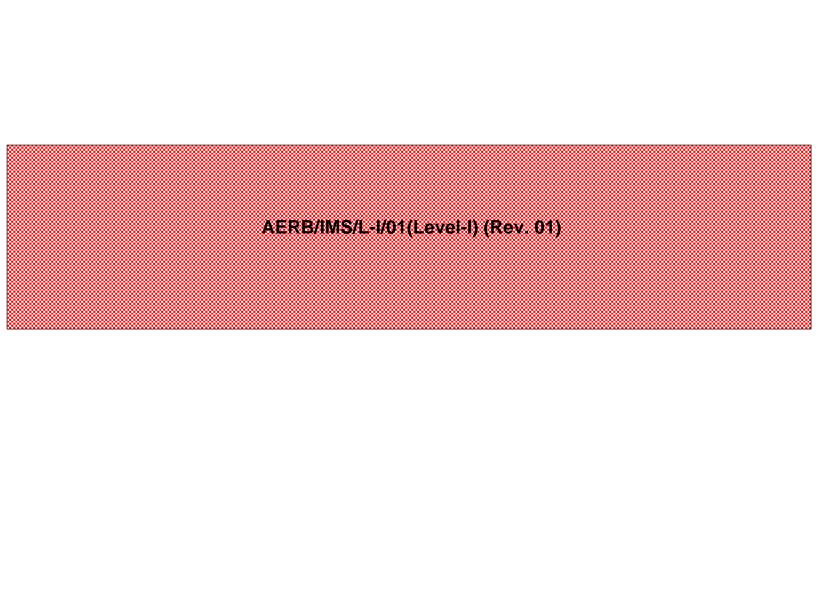
#### **Composition of IMS Committee**

Shri J. Koley	Convener
Shri Satyawan Bansal	Member
Shri Soumen Sinha	Member
Shri Parikshat Bansal	Member
Dr S.P.Lakshmanan	Member
Shri B.K.Singh	Member
Shri Susheel Kumar	Member
Smt Pammy Goswami	Member
Smt Soumya Varghese	Member
Shri Gopal Jee	Secretary





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