



Contaminated waste disposal MOU

INDIA NON JUDICIAL

Government of National Capital Territory of Delhi

e-Stamp

Certificate No. : IN-DL00267106145103U  
Certificate Issued Date : 05-Mar-2022 10:26 PM  
Account Reference : IMPACC (IV)/ di705103/ DELHI/ DL-DLH  
Unique Doc. Reference : SUBIN-DL70510389664742256782U  
Purchased by : Biotic Waste Solutions Pvt Ltd  
Description of Document : Article 5 General Agreement  
Property Description : Not Applicable  
Consideration Price (Rs.) : 0  
(Zero)  
First Party : Biotic Waste Solutions Pvt Ltd  
Second Party : Not Applicable  
Stamp Duty Paid By : Biotic Waste Solutions Pvt Ltd  
Stamp Duty Amount(Rs.) : 10  
(Ten only)



Please write or type below this line IN-DL0026710

Unique ID:1214

Agreement No:

This agreement is made and executed at New Delhi on \_\_\_\_\_

*(Signature)*

Statutory Alert:

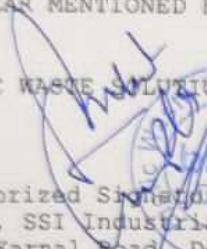
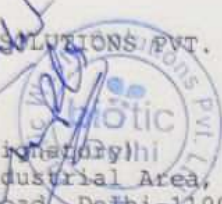
1. The authenticity of this Stamp certificate should be verified at 'www.shclstamp.com' or using e-Stamp Mobile App of Stock Holding. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

iv. The arbitration shall be sole and exclusive remedy between the Parties regarding the dispute referred to arbitration and any claims, counterclaims issues or accountings presented to the arbitrators in connection with such dispute  
v. The Parties hereby undertake to implement the directions contained in the award without delay. The costs and expenses of arbitration shall be paid as may be determined by the arbitrator.

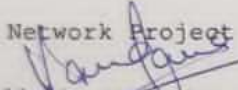
18. That Occupier must intimate the Operator in writing in advance, preferably over an email, if the HCF is closed due to any reason. In absence of such intimation, Occupier shall be liable to pay the service charges.


19. IN WITNESS WHEREOF, THE PARTIES HERE TO HAVE SET THEIR SIGNATURE AND SEAL ON THE DAY AND YEAR MENTIONED HEREIN ABOVE.

BIOTIC WASTE SOLUTIONS PVT. LTD.

  
  
(Authorized Signatory)  
46-47, SSI Industrial Area,  
G.T. Karnal Road, Delhi-110033  
9899910083, 9560896389  
ankit@biotic.co.in, care@biotic.co.in  
GST: 07AAECB3197N1Z8  
MSME: DL05B0003909

All India Network Project On Pesticide Residues Division Of Agricultural Chemicals

  
Dr. Vandana Tripathy

(Authorized Signatory)  
Room No. 203, Division Of Agricultural Chemicals, B-2 Block, LBS Building Indian  
Agricultural Research Institute, New Delhi-110012, State - DELHI, PIN - 110005  
  
New Delhi-110012

Witness: BIOTIC WASTE SOLUTIONS PVT. LTD.

Witness: All India Network Project On Pesticide Residues Division Of Agricultural Chemicals

भारत सरकार

विज्ञान और प्रौद्योगिकी मंत्रालय

बायोटेक्नोलॉजी विभाग

GOVERNMENT OF INDIA

MINISTRY OF SCIENCE & TECHNOLOGY

DEPARTMENT OF BIOTECHNOLOGY



एक कदम स्वच्छता की ओर

सत्यमेव जयते

ब्लॉक-2, 7वां तल, सी0 जी0 ओ0 कम्प्लेक्स  
लोधी रोड, नई दिल्ली-110003

Block-2, 7th Floor, C.G.O. Complex  
Lodhi Road, New Delhi-110003



Dated: 17.06.2019

BT/BS/17/095/1995-PID

### OFFICE MEMORANDUM

Subject: Nomination of DBT representative in the IBSC of ICAR-Indian Agricultural Research Institute (IARI), New Delhi.

In accordance with the Notification of the Ministry of Environment and Forests vide Gazette Notification No: GSR 1037 (E) dated 05.12.1989, notified under the E.P. Act 1986, the Department of Biotechnology (DBT) had evolved the "Regulations and Guidelines for Recombinant DNA Research and Biocontainment, 2017" for achieving for personnel and environmental safety in the use of genetically manipulated organisms in research, manufacture and applications. The constitution of the Institutional Biosafety Committee (IBSC) is mandatory in R&D Centres at the institutions/ universities/ industries/ any other organization which intend to carry out or are engaged in research activities involving genetic manipulation of genetic materials, microorganisms, plants or animals.

2. In conformity with the above, institutions engaged in genetic engineering research have constituted their IBSCs and the department has nominated its representatives in all such committees. Accordingly, **Dr. Manoj Prasad, Staff Scientist VI, National Institute of Plant Genome Research (NIPGR), Aruna Asaf Ali Marg, New Delhi – 110 067** has been nominated to act as a DBT representative in the IBSC constituted at **ICAR-Indian Agricultural Research Institute, Pusa, New Delhi – 110 012**.

The complete composition of the IBSC is as under:

Chairman	: Dr. A. K. Singh, Director, ICAR-IARI, New Delhi
DBT Nominee	: Dr. Manoj Prasad, Staff Scientist VI, NIPGR, New Delhi
Member Secretary	: Dr. A. Kumar, Principal Scientist, Div. of Plant Pathology, IARI, New Delhi
Outside Expert(s)	: Dr. M. K. Reddy, Group Leader, Crop Improvement Group, ICGEB, New Delhi
Biosafety Officer	: Dr. Anita Srivastava, Medical Officer, IARI, New Delhi
Internal Member (s)	: Dr. Rashmi Aggarwal, Head, Div. of Plant Pathology, IARI, New Delhi
	: Dr. Archana Sachdev, Principal Scientist, Div. of Biochemistry, IARI, New Delhi
	: Dr. Madan Pal, Principal Scientist, Div. of Plant Physiology, IARI, New Delhi

3. The DBT nominee serves as the link between the department and the respective IBSC. The nominee should ensure that:
- the committee has been constituted as per the norms of the guidelines,
  - the Recombinant DNA Safety Guidelines are strictly followed in the company,
  - the IBSC meets regularly (at least twice in a year) to review the ongoing activities and provide yearly reports to RCGM/ DBT in the prescribed *proforma*,
  - all the activities within the purview of the guidelines are in the knowledge of RCGM/DBT and to guide the IBSC on biosafety issues.
  - the IBSC will follow the 'Simplified Procedures/ Guidelines on Exchange (inter-state and inter-institutional supply/ receipt within India), Import and Export of Genetically Engineered Organism and Product(s) thereof for Research Purpose', as per the Department's OM Nos. BT/BS/17/635/2015/PID dated 22.09.2015 and dated 01.04.2018.
4. He will work for 3 years on the respective committee. On the expiry of term of nominee, institution / organizations are required to reconstitute its IBSC in prescribed *proforma*.
5. The DBT, on the expiry of the term of its nominee shall re-nominate or appoint a new nominee, and such nomination shall be communicated to the institutes/ organizations.

Website : <http://www.dbtindia.nic.in> <http://www.btisnet.gov.in>  
दूरभाष/Telephone : 24363012, 24362329 फैक्स/Fax : 011-24362884

Contd...

J. D (R)

Dr. A. Kumar

6. Any special invitee/s to IBSC should be communicated to RCGM/ or taken prior approval.
7. **The IBSC of the institution will meet at least twice in a year. The institutes having the IBSC are required to submit yearly report of progress (1st January to 31st December) within one month, following the expiry of the period of Progress Report to the DBT for enabling the proper monitoring and consolidation of this information by the RCGM and the Government. The DBT nominee may visit the R & D facility of the institute periodically, and interact with investigators involved in rDNA research/activities with hazardous microorganisms. Such visits undertaken are duly recorded in Annual Report of IBSC.**
8. The institute will meet the TA/DA & honorarium to the DBT nominee as per the GOI norms.



(Alka Sharma)  
Advisor/Scientist-'G', DBT &  
Member Secretary, RCGM

To, ✓

Dr. A. K. Singh,  
Chairman – IBSC & Director,  
ICAR-Indian Agricultural Research Institute,  
Pusa, New Delhi – 110 012.

Copy to:

1. Dr. Manoj Prasad, Staff Scientist VI, National Institute of Plant Genome Research (NIPGR), Aruna Asaf Ali Marg, New Delhi – 110 067, (Kindly access website i.e. <http://www.dbtindia.nic.in/guidelines/guidelines-for-biosafety/> for IBSC Guidelines & role of DBT nominee).
2. Dr. A. Kumar, Member Secretary - IBSC & Principal Scientist, Division of Plant Pathology, ICAR-Indian Agricultural Research Institute, Pusa, New Delhi – 110 012.
3. Office Copy
4. Guard file



(Alka Sharma)  
Advisor/Scientist-'G', DBT &  
Member Secretary, RCGM



भारत सरकार  
GOVERNMENT OF INDIA

परमाणु ऊर्जा नियामक परिषद्  
ATOMIC ENERGY REGULATORY BOARD  
Radiological Safety Division

नियामक भवन,  
अणुशक्तिनगर,  
मुंबई - 400 094.  
Niyamak Bhavan,  
Anushaktinagar.  
Mumbai - 400 094.

Shri S.P. Agarwal,  
Head, RSD

Telefax (022) 25574287  
Email spagarwal@aerb.gov.in

AERB/RSD/442/R/080/1R0/2005/ 576

December 09, 2005

Approval of Radiological Safety Officer

1. The Director, Indian Agriculture Research Institute, New Delhi is hereby informed that the Competent Authority, Chairman, Atomic Energy Regulatory Board (AERB), in exercise of powers conferred under Rule 12 of the Radiation Protections Rules, 1971, has approved the continuation of **Shri Bhupinder Singh as Radiological Safety Officer - Level I** in the research institute in the **Indian Agriculture Research Institute, New Delhi** on the basis of information provided in the application.
2. This approval is valid till **December 31, 2008**. This approval letter in original shall be returned to the competent authority in the event of Shri Bhupinder Singh relinquishing the charge as Radiological Safety Officer in the Indian Agriculture Research Institute, New Delhi.
3. The Radiological Safety Officer shall submit to AERB reports on the general radiation safety status of the institution at least once in six months. Any radiation safety related unusual occurrence shall be promptly reported to AERB and simultaneously to the Radiological Physics and Advisory Division (RP&AD), Bhabha Atomic Research Centre (BARC), Mumbai.

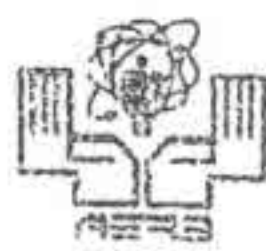
The Director,  
Indian Agriculture Research Institute,  
Pusa Campus,  
New Delhi- 110001

Head,  
Radiological Safety Division  
Head, Radiological Safety Division  
Atomic Energy Regulatory Board  
Government of India, Niyamak Bhavan,  
Mumbai - 400 094.

Copy to:

1. ✓ Shri Bhupinder Singh,  
Radiological Safety Officer,  
Indian Agriculture Research Institute,  
Pusa Campus, New Delhi- 110001
2. Head, RP&AD, BARC, CT&CRS Building, Mumbai-400

Attended  
RMP





25 Years of  
Safety Regulation  
1983 - 2008

परमाणु  
ऊर्जा  
नियामक  
परिषद



भारत सरकार  
GOVERNMENT OF INDIA  
Radiological Safety Division

Atomic  
Energy  
Regulatory  
Board

76



Shri S.P. Agarwal,  
Head, RSD.

AERB/RSD/UR/RSO/DL-23/R1/2009/ 913

January 12, 2009

### Approval of Radiological Safety Officer

1. The **Director, Indian Agricultural Research Institute, New Delhi** is hereby informed that the Competent Authority, Chairman, Atomic Energy Regulatory Board (AERB), in exercise of powers conferred under Rule 19 of the Atomic Energy (Radiation Protection) Rules, 2004, has approved the appointment of **Dr. Bhupinder Singh, Senior Scientist, Nuclear Research Laboratory, as Radiological Safety Officer Level-I in Nuclear Research Laboratory, Indian Agricultural Research Institute, New Delhi** on the basis of information provided in the application.
2. This approval is valid till January 31, 2012. This approval letter in original shall be returned to the competent authority in the event of Dr. Bhupinder Singh relinquishing the charge as Radiological Safety Officer in the Nuclear Research Laboratory, Indian Agricultural Research Institute, New Delhi.
3. The Radiological Safety Officer shall submit to AERB reports on the general radiation safety status of the institution during latest by January 31 every year. Any radiation safety related unusual occurrence shall be promptly reported to AERB.

Head,  
Radiological Safety Division

The Director,  
Indian Agricultural Research Institute,  
Pusa Institute,  
New Delhi – 11 0012.

Copy to: Dr. Bhupinder Singh,  
Radiological Safety Officer,  
Nuclear Research Laboratory,  
Indian Agricultural Research Institute,  
Pusa Institute,  
New Delhi – 11 0012.

Member Secretary SARCAR, RSD, AERB.

Attested  
Stamp



ISO 9001:2000  
Organisation

नियामक भवन, अणुशक्तिनगर, मुंबई - 400 094  
NIYAMAK BHAVAN, ANUSHAKTINAGAR, MUMBAI - 400 094

दूरभाष / TELEPHONE : 91-22-2557 2989-91, 93-95, 2599 0100  
फेक्स / FAX : 91 - 22 - 2556 5717, 2556 2344, 2558 3230  
वेबसाइट / WEBSITE : [www.aerb.gov.in](http://www.aerb.gov.in)



परमाणु  
ऊर्जा  
नियामक  
परिषद



Atomic  
Energy  
Regulatory  
Board

भारत सरकार  
GOVERNMENT OF INDIA

S.A. Hussain,  
Head, RSD.

Radiological Safety Division

AERB/RSD/UR/RSO/DL-23/2012/3054

March 01, 2012  
06

Approval of Radiological Safety Officer

1. The Director, Indian Agricultural Research Institute, New Delhi is hereby informed that the Competent Authority, Chairman, Atomic Energy Regulatory Board (AERB), in exercise of powers conferred under Rule 19 of the Atomic Energy (Radiation Protection) Rules, 2004, has approved the appointment of Dr. Bhupinder Singh, Principal Scientist, Nuclear Research Laboratory, as Radiological Safety Officer Level-I in Nuclear Research Laboratory, Indian Agricultural Research Institute, New Delhi on the basis of information provided in the application.
2. This approval is valid till **March 31, 2015**. This approval letter in original shall be returned to the competent authority in the event of Dr. Bhupinder Singh relinquishing the charge as Radiological Safety Officer in the Nuclear Research Laboratory, Indian Agricultural Research Institute, New Delhi.
3. The Radiological Safety Officer shall submit to AERB reports on the general radiation safety status of the institution during latest by January 31 every year. Any radiation safety related unusual occurrence shall be promptly reported to AERB.

*S.A. Hussain*  
Head, 1.3.12  
Radiological Safety Division

The Director,  
Indian Agricultural Research Institute,  
Pusa Institute,  
New Delhi – 110 012.

Copy to:

Dr. Bhupinder Singh, RSO,  
Principal Scientist  
Nuclear Research Laboratory,  
Indian Agricultural Research Institute,  
Pusa Institute,  
New Delhi – 110 012.

*Attested*  
*Bhp*



ISO 9001:2008  
Organisation

नियामक भवन, अणुशक्तिनगर, मुंबई - 400 094  
NIYAMAK BHAVAN, ANUSHAKTINAGAR, MUMBAI - 400 094

दूरभाष / TELEPHONE : 91-22-2557 2989-91, 93-95, 2599 0100  
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वेबसाइट / WEBSITE : [www.aerb.gov.in](http://www.aerb.gov.in)

दूरभाष / TELEPHONE : 91-22-2599 0100 / 0101  
फैक्स / FAX : 91-22-2599 0650, 2558 3230  
वेबसाइट / WEBSITE : www.aerb.gov.in



ISO 9001:2015



सत्यमेव जयते

भारत सरकार  
GOVERNMENT OF INDIA

परमाणु ऊर्जा नियामक परिषद  
ATOMIC ENERGY REGULATORY BOARD

RADIOLOGICAL SAFETY DIVISION

नियामक भवन / NIYAMAK BHAVAN,  
अणुशक्तिनगर / ANUSHAKTINAGAR,  
मुंबई / MUMBAI-400 094.

482  
27-05-15

78

Dr. A.U. Sonawane  
Head, RSD

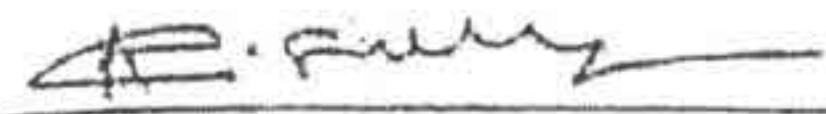
Tel: (022) 2599 0656, 2557 4287  
Fax: (022) 2599 0650  
E-mail: dr.avinashs@aerb.gov.in

Ref. No: AERB/RSD/Res/RSO/DL-110/2015/ 3460

Date of issue: 11/05/2015  
Date of expiry: 11/05/2018

**Approval of Radiological Safety Officer**

1. The Director, Indian Agricultural Research Institute, New Delhi, is hereby informed that the Chairman, Atomic Energy Regulatory Board (AERB), in exercise of powers conferred under Rule 19 of the Atomic Energy (Radiation Protection) Rules, 2004, has approved the nomination of Dr. Bhupinder Singh, Principal Scientist, Nuclear Research Laboratory, as Radiological Safety Officer, for the radioisotope research facility in Nuclear Research Laboratory, Indian Agricultural Research Institute, New Delhi, on the basis of information provided in the application.
2. The Radiological Safety Officer shall submit to AERB the periodic reports on safety status of the radiation installation in the prescribed format.
3. The Radiological Safety Officer shall promptly report any radiation safety related unusual occurrence to AERB.
4. The RSO shall perform duties as stipulated in Atomic Energy (Radiation Protection) Rules, 2004 (Annexure-A) and other related regulatory documents.
5. This approval stands cancelled in the event of Dr. Bhupinder Singh relinquishing the charge as Radiological Safety Officer in Nuclear Research Laboratory, Indian Agricultural Research Institute, New Delhi.

  
(A.U. Sonawane)

The Director,  
Indian Agricultural Research Institute,  
Pusa Institute,  
New Delhi - 110 012.

Copy to: ✓

Dr. Bhupinder Singh, RSO,  
Principal Scientist  
Nuclear Research Laboratory,  
Indian Agricultural Research Institute,  
Pusa Institute,  
New Delhi - 110 012.

Affair  
Bhp &

27/5/15





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Case file no.: DL-00204-INST

Date of Issue: 28/07/2017

Document No.: 17-RSO-203671

Valid till: 28/07/2020

**Approval of Radiological Safety Officer**

1. The JOINT DIRECTOR, Indian Agricultural Research Institute, Delhi is hereby informed that the Competent Authority, Chairman, Atomic Energy Regulatory Board (AERB), in exercise of powers conferred under Rule 19 of the Atomic Energy (Radiation Protection) Rules, 2004, has approved the nomination of BHUPINDER SINGH as Radiological Safety Officer (RSO) in the Indian Agricultural Research Institute, Delhi for the facilities as mentioned in annexure-1 to this document on the basis of information provided in the application.
2. The RSO shall submit the periodic reports to AERB, in the prescribed format on safety status of the radiation installation.
3. The RSO shall promptly report any radiation safety related unusual occurrence to AERB.
4. The RSO shall perform his duties and responsibilities as stipulated in Atomic Energy (Radiation Protection) Rules, 2004 and other related regulatory documents (refer annexure-2).
5. This approval stands cancelled in the event of BHUPINDER SINGH relinquishing the charge as RSO in Indian Agricultural Research Institute, Delhi.

Issuing Authority,

Dr. A.U.Sonawane  
Head

(This is an electronically generated letter and hence signature is not required)

JOINT DIRECTOR  
Indian Agricultural Research Institute  
Nuclear Research Laboratory, IARI, New Delhi, Delhi - 110012 (Delhi)

Copy: BHUPINDER SINGH  
Indian Agricultural Research Institute  
Nuclear Research Laboratory, IARI, New Delhi, Delhi - 110012 (Delhi)



परमाणु ऊर्जा नियामक परिषद्, नियामक भवन, अणुशक्तिनगर, मुंबई 400094 (महाराष्ट्र)  
Atomic Energy Regulatory Board, Niyamak Bhavan, Anushaktinagar, Mumbai 400094 (Maharashtra)

वेबसाइट/Website: www.aerb.gov.in

दूरभाष/Tel: 91-22-2599 0656



An ISO 9001:2008  
Organisation

फैक्स/Fax: 91-22-2599 0650



Case file no.: DL-00204-INST

Date of Issue: 28/07/2020

Document No.: 20-RSO-518950

Valid till: 28/07/2023

### Approval of Radiological Safety Officer

1. The JOINT DIRECTOR, Indian Agricultural Research Institute, Delhi is hereby informed that the Competent Authority, Chairman, Atomic Energy Regulatory Board (AERB), in exercise of powers conferred under Rule 19 of the Atomic Energy (Radiation Protection) Rules, 2004, has approved the nomination of BHUPINDER SINGH as Radiological Safety Officer (RSO) in the Indian Agricultural Research Institute, Delhi for the facilities as mentioned in annexure-1 to this document on the basis of information provided in the application.
2. The RSO shall submit the periodic reports to AERB, in the prescribed format on safety status of the radiation installation.
3. The RSO shall promptly report any radiation safety related unusual occurrence to AERB.
4. The RSO shall perform his duties and responsibilities as stipulated in Atomic Energy (Radiation Protection) Rules, 2004 and other related regulatory documents (refer annexure-2).
5. This approval stands cancelled in the event of BHUPINDER SINGH relinquishing the charge as RSO in Indian Agricultural Research Institute, Delhi.

Issuing Authority,

Dr. P. K. Dash Sharma  
Head, RSD

(This is an electronically generated letter and hence signature is not required)

JOINT DIRECTOR  
Indian Agricultural Research Institute  
Nuclear Research Laboratory, IARI, New Delhi, Delhi - 110012 (Delhi)

Copy: BHUPINDER SINGH  
Indian Agricultural Research Institute  
Nuclear Research Laboratory, IARI, New Delhi, Delhi - 110012 (Delhi)



परमाणु ऊर्जा नियामक परिषद्, नियामक भवन, अणुशक्तिनगर, मुंबई 400094 (महाराष्ट्र)  
Atomic Energy Regulatory Board, Niyamak Bhavan, Anushaktinagar, Mumbai 400094 (Maharashtra)

भारत सरकार  
परमाणु ऊर्जा नियामक परिषद्  
विकिरण संरक्षा प्रभाग



GOVERNMENT OF INDIA  
ATOMIC ENERGY REGULATORY BOARD  
RADIOLOGICAL SAFETY DIVISION

Case File Number: DL-00204-17-RSSLA-201032

Issuance Date: 09/11/2021

Document Number: 21-RSSRCPROC-690685

Expiry Date:  
09/11/2022

### NO OBJECTION CERTIFICATE FOR **PROCUREMENT OF RADIATION SOURCE (S)**

In exercise of powers conferred under Section 16 of the Atomic Energy Act, 1962 read with Rule 3 of the Atomic Energy (Radiation Protection) Rules, 2004, (AE(RP)R, 2004) the Atomic Energy Regulatory Board (AERB) hereby issues No Objection Certificate (NOC) in favour of **KUMBLE VINOD PRABHU** to procure/import the radiation source(s) from radiological safety stand point as given in Annexure-I for use at Department/Unit **Nuclear Research Laboratory** of the institute **Indian Agricultural Research Institute, New Delhi**.

The **JOINT DIRECTOR, Indian Agricultural Research Institute, New Delhi** and **KUMBLE VINOD PRABHU** are hereby identified as the employer and the licensee, respectively, for the purpose of assigning the responsibilities specified in the AE(RP)R, 2004 in respect of radiation protection of workers and public because of the work with radiation carried out by Department/Unit of the institute **Indian Agricultural Research Institute, New Delhi**.

It shall be ensured that the package of radioactive material is prepared, packed, labelled and marked as per the current applicable national and international regulations for the safe transport of radioactive material. All the required statutory clearances, if any, should be obtained from relevant authority(ies).

This NOC subject to the terms and conditions stipulated in Annexure-II.

Issuing Authority

Namitha Krishnakumar  
Scientific Officer ( E )

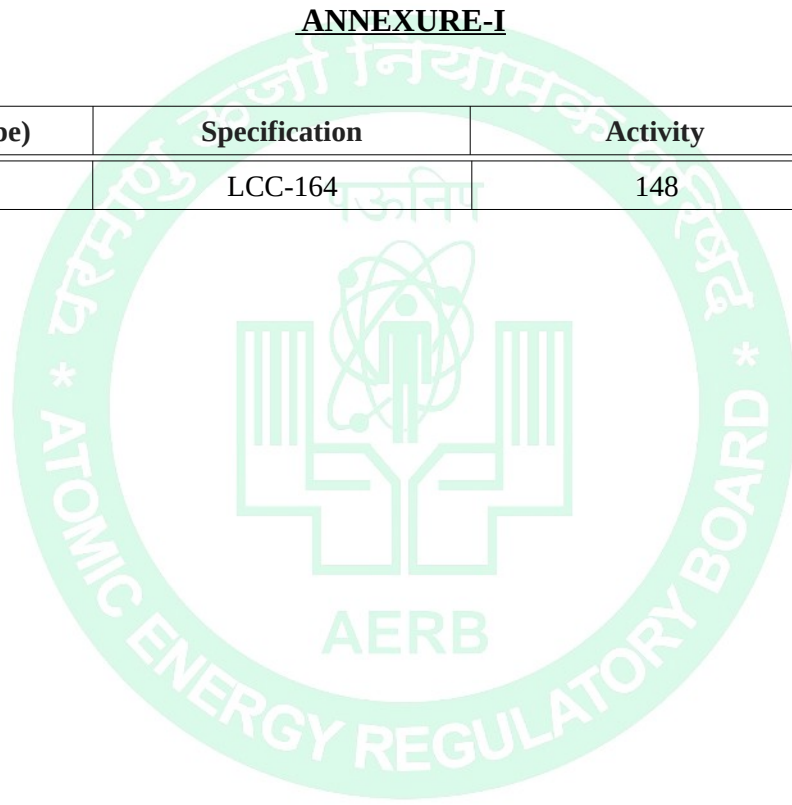
**KUMBLE VINOD PRABHU**  
**JOINT DIRECTOR**  
**Nuclear Research Laboratory**  
**Indian Agricultural Research Institute,**  
**NRL, IARI, Pusa Institute, Pusa Institute, New Delhi, Delhi-110012**



परमाणु ऊर्जा नियामक परिषद्, नियामक भवन, अणुशक्तिनगर, मुंबई 400094 (महाराष्ट्र)  
Atomic Energy Regulatory Board, Niyamak Bhavan, Anushaktinagar, Mumbai 400094 (Maharashtra)

**ANNEXURE-I**

Source (Radioisotope)	Specification	Activity	Unit
C-14	LCC-164	148	MBq



## ANNEXURE-II

### TERMS AND CONDITION OF ISSUANCE OF AUTHORISATION FOR RESEARCH INSTITUTIONS

- 1) The above radiation source(s) shall be used only after obtaining the registration from the Competent Authority under the AE(RP)R, 2004.
- 2) It shall be ensured that the package of radioactive material is prepared, packed, labelled and marked as per the current applicable national and international regulations for the safe transport of radioactive material.
- 3) Regulatory Intimation: The intimation / report to be sent by the Head of Institution / University / Centers to this division:
  - a. Upon commissioning of the Department.
  - b. In the event any unusual incident (e.g.) major spillage of radioactivity leading to contamination of workplace, worker or public within 24 hours.
  - c. Annual Status Report of the Research Institution / University / Centers in the prescribed format (AERB/Res/Status) by the end of each calendar year.
  - d. If the RSO or Licensee leaves the institution or ceases to be in a position to discharge the duties as RSO or Licensee, the employer should intimate the same to AERB.
2. Regulatory responsibilities: The responsibilities to be borne by the RSO, Licensee and the Employer are laid down in the Atomic Energy (Radiation Protection) Rules, 2004.
3. Disused sources: When a source, is no longer used for the authorized purpose, or upon completion of its useful life, the source should be allowed to decay sufficiently in the case of short half life radioisotopes or it should be returned to the original supplier in the case of sealed and long half life radioisotopes, in accordance with the procedure for the same laid down by AERB.
4. Storage of source(s) not in use: When not in use, or pending disposal, the source(s) should be stored in an exclusive safe and secured storage area.
5. Radioactive waste disposal: Radiation Safety Officer (RSO) is responsible to achieve the enough decay or dilution before releasing any radioactive waste to the central sewage in accordance with Atomic Energy (Safe Disposal of Radioactive Waste) Rules, 1987.
6. Responsibility as to safety and security of the source(s): From the date of receipt up to the time of disposal of the sources(s), the safety and security of the sources(s) is the responsibility of the Licensee.
7. Sale or transfer of sources(s): The source(s) should not be sold or otherwise transferred to another person without obtaining the specific authorization from AERB.
8. Shifting of sources(s) within the same premises: The sources(s) should not be shifted from the location where it was intended to use as indicated in the application for issuance of authorization, without obtaining specific prior licence from AERB.
9. Transport of the source(s) outside the premises: The source(s) should not be transported out of the location where it was intended to be used as indicated in the application for issuance of authorization, without obtaining specify prior license from AERB and upon obtaining such authorization, the source should be transported in accordance with the mandatory requirement for the safe transport of radioactive material.
10. Incident involving the source(s): If an incident involving the safety and/or security of the source(s) such as loss, theft or misplacement occurs, the same should be intimated to AERB within 24 hours of the occurrence of the

incident.

11. Non-Utilization of Authorization: If the Licensee leaves the institution or ceases to be in a position to discharge the duties as Licensee, the same should be intimated to AERB and the authorization in original issued in the name of the Licensee should be returned to AERB within 15 days.
12. Penalty: The Licence can be withdrawn, amended, revoked or suspended by AERB, as specified in the Atomic Energy (Radiation Protection) Rules, 2004, if any of the terms and conditions of the license is contravened.
13. Please note that all the Guides and regulatory forms can be downloaded from [www.aerb.gov.in](http://www.aerb.gov.in).

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**Remote Regulatory Inspection Findings**

[Doc No. : AERB/IMS/L-III/DRI/RFIC/RRIF]

**Directorate of Regulatory Inspection  
ATOMIC ENERGY REGULATORY BOARD**Revision : 0  
Date : Sept. 2020

Page 1 of 1

Name of Facility (e-LORA ID)	Indian Agricultural Research Institute DL-00204
Practice / Activity	Gamma Irradiation Chamber
Self-Assessment Date / Period	24/06/21
Video Conference Date	14/07/2021
Remote Inspection Team:	1. LALIT MOHAN SHARMA (Team Leader) 2. AJEET SINGH (Team Member) 3.
Facility Representatives (Name & Designation) :	1. Dr. BHUPINDER SINGH (Principal Scientist & RSO) 2. 3.

**1.0 Remote Inspection Findings** (to be filled based on review of self-assessment checklist as received and virtual verifications / discussions through video conference. Self-assessment checklist along with this form will be considered as inspection checklist)

Reference [SA Checklist Clause #]	Observations
5.2 Radiation Surveillance	Radiation warning symbol are displayed at the GIC room as per AERB safety Directive
6.0 Managment and Records	Document on security plan of the GIC unit is not available

**2.0 Feedback**

I/we was/were briefed by the inspector(s) about the above mentioned inspection findings during the remote inspection and fully agree to the findings.

*Bhupinder Singh*  
(Signature of Employer) 14.7.2021  
Name: BHUPINDER SINGH  
RCO

डॉ. भूपेन्द्र सिंह Dr. Bhupinder Singh  
अध्यक्ष FACILITY Head



SEAL

पर्यावरण विज्ञान एवं जलवायु समुत्थानशील कृषि केन्द्र  
Center for Environment Science and Climate Resilient Agriculture  
ICAR-IARI, New Delhi-12

**Name of Inspectors**

- LALIT MOHAN SHARMA
- AJEET SINGH
- 

**Signature with Date**

- Lalit Mohan*  
14/07/21
- Ajeet Singh*  
14/07/21
-



Case File Number: DL-00204-RF-GIC-001

Issuance Date: 31/07/2020

Document Number: 20-GICCOMM-519891

Valid Till: 31/07/2023

**AUTHORISATION FOR POSSESSION AND OPERATION OF GAMMA IRRADIATION CHAMBER**

In exercise of powers conferred under Section 16 of the Atomic Energy Act, 1962 read in conjunction with Rule (3) of the Atomic Energy (Radiation Protection) Rules {AE(RP)R}, 2004, the Atomic Energy Regulatory Board (AERB) hereby issues the Authorization in favour of Dr. KUMBLE VINOD PRABHU, JOINT DIRECTOR, Indian Agricultural Research Institute, New Delhi, (hereinafter referred to as the licensee) to possess and operate the Gamma Irradiation Chamber as per Annexure-I.

JOINT DIRECTOR, Indian Agricultural Research Institute and KUMBLE VINOD PRABHU hereby identified as the Employer and the Licensee respectively also for the purpose of assigning the responsibilities specified in the Atomic Energy (Radiation Protection) Rules, 2004, in respect of radiation protection of workers, public and environment because of possession and operation of Gamma Irradiation Chamber by Indian Agricultural Research Institute.

The Employer/ Licensee shall be responsible for:

(a) Ensuring compliance with the relevant provisions of the

1. Atomic Energy Act, 1962;
2. Atomic Energy (Radiation Protection) Rules, 2004;
3. Atomic Energy (Safe Disposal of Radioactive Wastes) Rules, 1987;
4. Guide on Security of Radioactive Sources in Radiation Facilities no. AERB/RF RS/SG-11, 2011 and Security of Radioactive Material (RAM) during transport No. AERB/NRF-TS/SG-10, 2008.
5. Other applicable regulatory documents issued by AERB;

(b) Ensuring compliance with the terms and conditions cited above and stated in Annexure-II.

This Authorisation may be suspended, modified or withdrawn as deemed fit in the event of contravention of the provisions of the above Act / Rules / Codes or terms and conditions.

A copy of this Authorisation should be displayed in the room where the Gamma Irradiation Chamber is installed.

Issuing Authority,  
Dr. P. K. Dash Sharma  
Head, RSD

DR. KUMBLE VINOD PRABHU  
INDIAN AGRICULTURAL RESEARCH INSTITUTE  
NUCLEAR RESEARCH LABORATORY, IARI,  
NEW DELHI  
NEW DELHI,  
DELHI-110012





**ANNEXURE-I**

<b>Model</b>	GC-5000
<b>Sr. No.</b>	11
<b>Source</b>	Co-60
<b>Design activity in TBq</b>	518
<b>Authorised Indian Supplier</b>	BOARD OF RADIATION AND ISOTOPE TECHNOLOGY, Navi Mumbai, Maharashtra
<b>Manufacturer</b>	BRIT, India

Issuing Authority,

Dr. P. K. Dash Sharma  
Head, RSD

**ANNEXURE-II**  
**TERMS AND CONDITIONS**

1. Gamma Irradiation Chamber (GIC)/X-Ray based Irradiation chamber (XIC) shall not be used for purposes other than those specified in the authorization.
2. **Responsibilities of employer, consentee and RSO:** The regulatory responsibilities of the employer, consentee and the RSO are laid down in the Atomic Energy (Radiation Protection) Rules, 2004. If the consentee or the RSO leaves the institution or is transferred to another department of the same institution or ceases to be in a position to discharge their duties in respect of the radiation sources in the institution, the same should be brought to the notice of AERB.
3. **Responsibility of safety and the security of the source:** From the procurement up to the time of disposal of the source contained in GIC, the safety and security of the source is the responsibility of the employer.
4. **Regulatory recommendations:** All recommendations made from time to time by the competent authority in respect of radiation safety measures and physical security measures should be implemented;
5. **Approved Layout:** The consentee shall not modify the approved layout of the installation room and design of GIC, without obtaining prior approval of AERB.
6. **Sale or transfer:** The GIC/XIC should not be sold or otherwise transferred to another person without obtaining prior approval from AERB.
7. **Maintenance:** Maintenance of GIC/XIC should be carried out in accordance with standard procedures issued by the supplier/manufacture of the equipment.
8. **Periodic Status Report:** The periodic status report of all radiation devices/sources in the possession of the institution shall be submitted to AERB.
9. **Regulatory Inspection:** Full facilities should be accorded to any authorised representatives of the competent authority to inspect the GIC/XIC installation at any time.
10. **Radiation surveillance and medical surveillance:** Radiation surveillance and medical surveillance of persons engaged in radiation work should be provided as required by the competent authority.
11. **Storage of source not in Use:** When not in use, (before installation or during service and maintenance or pending disposal) the GIC housing the sources should be stored in an exclusive safe and secure storage area and shall not be disposed off in any case without obtaining prior approval from AERB.
12. **Shifting of source within the same premises:** The GIC/XIC should not be shifted from the approved location where it was intended to be used as indicated in the application for issuance of authorization, without obtaining specific prior consent from AERB.
13. **Transport of the source outside the premises:** The GIC/XIC should not be transported out of the approved location, without obtaining prior approval from AERB and upon obtaining such permission, the GIC should be transported in accordance with the mandatory requirements for the safe transport of radioactive material.
14. **Disused sources:** When a radioactive source, is no longer in use for the authorized purpose, or upon completion of its useful life, the source should be returned to the original supplier, in accordance with the procedure for the same laid down by AERB. In respect of imported radioactive sources, specific prior permission for re-export of the same should be obtained from AERB.
15. **Incident involving the source:** If an incident involving the safety and / or security of the source occurs, the same should be intimated to AERB within 24 hours of the occurrence of the incident. In the event of loss or theft of the source, the matter should also be reported to the local police within 24 hours of occurrence of the incident.
16. **Renewal of Authorization:** In case of expiry of the authorization , the same shall be renewed within one month from the date of expiry.
17. **Offences and penalties:** Any person who contravenes the provisions of Atomic Energy (Radiation Protection) Rules, 2004 or any of the terms and conditions of this licence, shall be punishable as provided for under the Atomic Energy Act, 1962.