

Installation and operational guidance on ultraportable handheld x-ray device (HHXray) for Tuberculosis screening in the community

Central TB Division
Ministry of Health and Family Welfare, New Delhi
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Section 1: Key stakeholders and their roles and responsibility

The below table outlines the key stakeholders and their roles and responsibility from pre-delivery of ultraportable handheld x-ray (HHXray) device till obtaining the operational license for it:

Category	Organization	Key Stakeholder	Roles and responsibility	Details
National Level	Central TB Division, Ministry of Health & Family Welfare, Govt of India		Overall monitoring and guidance at National level	Section 2.1
	Atomic Energy Regulatory Board (AERB)		1. Approval of HHXray Procurement Letter 2. Issuance of Operational License	Section 2.3 Section 3.4
	TLD Agency (BARC Approved)	Zone-wise distribution of Agencies provided in Section 2.4	Issuance of TLD Badges	Section 2.4
	NGO Partner William J Clinton Foundation (WJCF)	National WJCF Programme Management Unit	Procurement of HHXrays for Central TB Division and active Case finding in 24 implementation districts in 8 States	
	HHXray vendor		1. Delivery, Installation, Quality Assurance, 2. Obtaining Operational License	Section 3 Section 4
State Level	State TB Team	State TB Officer (STO)	1. Identification of sites 2. Coordination for delivery, installation and licensing 3. Programmatic activities 4. Monitoring of outcomes at State level	Section 2 Section 3
		State TB Single Point of Contact person (SPOC)	1. All intra-State level coordination with DTOs, NHM, CTD and	Section 2 Section 3

		(Nominated by STO)	2. Coordination with NGO/ HHXray vendor for Operational license is issued	
	State Health Department	National Health Mission	1. Necessary approval 2. Facilitate site identification 3. Activity monitoring	Section 6
	NGO Partner [William J Clinton Foundation (WJCF)]	State Lead* (*support in 8 states - Bihar, Rajasthan, Gujarat, Haryana, Uttarakhand, Uttar Pradesh, J&K and Kerala)	Support STO, State TB SPOC & DTOs and coordinate with HHXray device vendor for site identification, pre-delivery process, delivery, licensing and utilization	Section 2 Section 3 Section 6
District Level	District TB Team	District TB Officer (DTO) Facility In-charge Radiation safety officer (RSO)	1. Receiving HHXray machines 2. Applying for Procurement Letter, Signing of Installment Report 3. Quality Assurance Report and Downloading Operational License	Section 2 Section 3 Section 5
	NGO Partner [William J Clinton Foundation (WJCF)]	District NGO Supervisor* (*support at 33 sites listed in Annexure H)	Facilitate DTO in the pre-delivery process, delivery, training, obtaining license and field activity	Section 5 Section 6
	Radiographer / Xray technician	From the Districts NHM (*radiographer will be hired from WJCF for selected 33 sites listed in Annexure H for limited period)	Responsible for handling, storing & operating the HHXray device	Section 2 Section 5 Section 6

Section 2: Pre-Delivery Process

2.1 Nomination of State TB Single Point of Contact (SPOC)

- 2.1.1 The State TB Officer (STO) is expected to designate a SPOC responsible for overseeing and assisting with all activities related to the HHXray device, coordinating with CTD, including finalizing the district/facility, identification of sites, facilitate installation and licensing with the district.
- 2.1.2 SPOC will also be coordinating with various stakeholders within the state such as DTOs, CMHO/CMO/CDHO, Facility-in-charge, NGO Partners, and HHXray device vendors to monitor and ensure compliance for the following:
1. Facility identification for installation, registration & device storage
 2. Issuance of procurement letter
 3. Installation, quality assurance process and report generation
 4. Application and receipt of operational license
 5. Progress of active case finding activities.

2.2 Ownership & Insurance of Device

- 2.2.1 The State health department / State TB Cell will be the owner of HHXray device. When supply of HHXray device by the vendor, the district health department / district TB cell should receive, take custody of the equipment(s) and inform State health department/ State TB Cell and SPOC. The SPOC should facilitate sharing of the information to CTD through STO about receiving and installation.
- 2.2.2 All the devices will be under warranty and insured for the first 2 years. The Insurance documentation will be shared with the DTO after the delivery of the devices. The DTO should ensure that the insurance document should be made available to the DTO office.
- 2.2.3 After the initial 2-year period, the insurance and comprehensive maintenance contract (CMC) should be procured by the state health department. The budget should be proposed under National Health Mission's Programme Implementation Plan (NHM PIP).

2.3 Identification of Facility for Storage

- 2.3.1 **For the HHXray device registration and storage, under the guidance of STO, the SPOC will coordinate with the DTO to identify a suitable health facility - preferably District TB Centre/ District Hospital (DH)/ Community Health Center (CHC) equipped with an existing X-ray facility.** The existing X-ray facility will aid in the registration of the new HHXray device.
- 2.3.2 Consider the following requirements for storage to ensure safety and accessibility:
- a) **Essential requirement**
 - The device can be fitted in the cupboard and stored. However, for security reasons, it is preferable to store HHXray in a secure room which has a lock & key. Either room

or cupboard where the equipments stored should be have a sanitary environment, with no water leakages or dust. The device must not be stored in an area under direct sunlight.

- The device is available with rechargeable batteries. 5amp charging point is adequate. Active charging points for charging the various components of the device should be identified in the room.
- A logbook should be maintained to record the time of taking out and storing of device on daily basis. The logbook will be monitored by DTO/Facility In-charge daily. The logbook should have the below details:
 - The Name/ designation & contact number of the person along with time of taking out the device from facility.
 - Name/ designation & contact number of the person along with time of bringing back the device to the facility.
- The facility in-charge should provide access to the storage room to designated personnel as nominated by the DTO for utilizing HHXray device.
- In cases where an NGO Partner is conducting community activity and active case finding (ACF) camps and has required manpower to operate the device, the DTO should nominate and provide access based on camp days and timings.

b) Desirable (not mandatory)

- CCTV Monitoring mechanism at the facility
 - Availability of Security Guard.
- 2.3.3 Any request for change of designated storage space should only be possible with the consultation with the facility in-charge. The DTO should be informed through official email communication regarding the change in storage space.
- 2.3.4 If under any circumstances HHXray device needs to be transported or stored by any personnel other than the designated person, the same needs to be informed to the DTO over phone (immediately) and via email (later) and the same will also be recorded in the logbook.
- 2.3.5 The device and other components of the device should only be stored in the designated case and should not be stored in any other way.
- 2.3.6 **The device, detector battery, and the laptop should be charged one day prior to the use of device for next camp.**

2.3.7 Any issues related to storage of HHXray device are to be raised to the DTO for resolution/ approval, while keeping SPOC informed.

2.3.8 **Alternate Facility Selection:** In the special circumstances, office premise of NGO partner involved in the active case finding work may be considered as an alternative if it meets the essential criteria for storage. The NGO partner involved in active case finding must share periodically the plan of taking out the device and the logbook for verification.

Kindly note: this Alternate facility can only be used for storage and not for device registration.

2.4 Registration & Procurement of Device:

2.4.1 The identified facility for HHXray device registration should be a facility which has an existing X-ray registration done with the Atomic Energy Regulatory Board (AERB) with valid facility log-in details, registered email and mobile number. Thus, it should be preferred to register HHXray either in DTC or District Hospital (DH) or one of the Community Health Centre.

Kindly note: when logging in to the AERB portal from the exiting registered email and mobile number, there should be no pending notifications/tasks for the facility (e.g. pending training, radiation check etc. for existing machine) as this may delay the process of application.

2.4.2 If there are any pending notifications/tasks the DTO and SPOC should address it along with the Radiation safety officer (RSO).

2.4.3 AERB Login portal provided in *Annexure A*.

2.4.4 DTO/ facility in-charge should apply for Procurement Letter on AERB (eLORA) portal (<https://elora.aerb.gov.in/ELORA/populateLoginAction.htm>). **The Procurement Letter is an application form that is used for the approval of procurement/ import of any Radiography Exposure Device.**

Government of India
Atomic Energy Regulatory Board
e-Licensing of Radiation Applications (eLORA) System

Guidelines
Diagnostic Radiology Related/Licensed Facilities, QA Equipments, QA Agencies)
Processing time for issuance of Regulatory Consents
Feedback

Frequent Queries
RP/Institute registration status | Reason for non-acceptance
Correction in e-mail id and mobile no. | Login issues | Profile/role issues | Practice issues
Check application status | Correct submitted data
Institute Registration | Step by step help | Raise an issue to AERB
Registration of RP| Training Courses| Feedback

Registration Form
Register Institute
Register Radiation Professional (RP)
Register Incoming Employer - after Initiation of Employer Change Process
Know Your Application Status
Institute Registration Application
Radiation Professional Registration Application
Verification of Consent/Document issued through eLORA

Quick help on eLORA
Login
 Institute Radiation Professional
Username*
Password*
Practice* --Select One--
Institute Role* --Select One--
Installation Type* --Select One--
Login
Forgot / not received my password

2.4.5 After successfully login, The Steps to be followed are Selection of Form: *Regulatory Form* → *Industrial Radiography* → *Procurement of Radiography Device*. This will require an OTP from the Facility In charge/RSO (as per the registered mobile number)

Sample Procurement form in *Annexure B*.

2.4.6 Fill out the form with the following information:

- **Type of Equipment:** Radiography (Portable)
- **Where equipment to be used a vehicle mounted:** No
- **Expected workload:** High
- **Purpose of the Equipment:** Medical Diagnosis
- **Approval Required for:** New Device
- **Model Name:** Mine 2.1 (or as specified)
- **Name of Manufacturer:** OTOM Co., Ltd., Korea (or as specified)
- **Name of Supplier:** Labindia Healthcare, Private Limited, Gurgaon, India (or as specified)



2.4.7 Agree to the Terms & Conditions and press 'Submit'.

2.4.8 After application is submitted, it will be reviewed by AERB. Upon approval, there will be notification on the eLORA portal. The approval usually takes a few hours from the time of submission.

2.4.9 The Procurement Letter can be downloaded from the portal under 'My Applications' and will also be received by the registered email address– Sample Approved Procurement Letter provided in *Annexure C*.

2.4.10 The Procurement Letter must be downloaded and shared with HHXray device vendor to start the process of device delivery to the registered facility.

2.4.11 State TB SPOC will monitor and support the DTO in the process for Procurement Letter

2.4.12 If the district/site comes under the NGO Partner's implementing site, the state lead of NGO partner will help DTO and SPOC in this process.

Detailed steps are provided on <https://www.aerb.gov.in/images/PDF/DiagnosticRadiology/e-LORA-Diagnostic-Radiology-Guidelines.pdf>

2.5 Procuring TLD badge & Lead Apron for Radiographer

2.5.1 **Lead Apron:** It is important to operate HHXray with adequate safety provision as outlined by AERB. Lead Aprons must be used and DTO can initiate the procurement from the office operations budget head.

2.5.2 **TLD Badge:** The DTO needs to Identify the BARC approved TLD badge agency based on the zone in which the state is situated. The following process needs to be followed for acquiring TLD badge. (1 badge per radiographer/ x-ray technician)

- The DTO/ facility in charge should fill the TLD badge application from the respective website of the BARC approved service agency and download the same.
- The payment on the online portal needs to be made from the office operations budget head.
- Sample TLD -Application Form provided in *Annexure D*
- The Form needs to be duly signed by DTO/Facility-in-charge and radiographer.
- The DTO should attach the payment receipt to signed form and courier it to the respective BARC approved service agency as mentioned above.
- The TLD badge must be couriered back to respective BARC approved service agency every quarter for 'Quarterly Dose Report'. The agency will send a replacement badge to the registered facility.
- State TB SPOC to monitor and ensure the completion of the process for TLD application.

In 33 district sites where NGO Partner-WJCF is expected to support the activity, the DTO/ Facility-in charge can take the support for filling the form. Moreover, the payment for the TLD batch cost for the first year and Lead apron is also budgeted by NGO Partner-WJCF under the project for these sites only. Subsequently, the DTO would be responsible for future payment and renewal.

Zone-wise Approved TLD Badge Agencies

States	Agency Details
<p>Southern Zone</p> <p>Andhra Pradesh, Telangana, Tamil Nadu, Karnataka, Kerala, Puducherry, Andaman and Nicobar and Lakshadweep</p>	<p>Avanttec Lab. Private Limited Plot No.17, Arignar Anna Industrial Estate, Mettukuppam, Vanagaram, Chennai Pin- 600095 Tel.: 044-23862025</p> <p>https://tldavanttec.com/</p>
<p>Western Zone</p> <p>Maharashtra, Gujarat, Rajasthan, Goa, Dadra and Nagar Haveli and Diu</p>	<p>Renentech Lab. Private Limited C-106, Synthofine Industrial Estate, Off Aarey Road, Goregaon (E), Mumbai, Maharashtra Pin- 490063 Tel.:022-40037476</p> <p>https://renentech.com/</p>
<p>All other states in the Central, Northern and North- Eastern parts of the country</p>	<p>Ultratech Lab. Private limited Cloth Market, G.E. Road, kumhari, Bhilai, Durg, Chhattisgarh Pin- 490042 Tel.: 0788-3295166, 09981212431</p> <p>http://ultratechlab.com/</p>

Section 3: Delivery Process

3.1 Delivery

- 3.1.1 The HHXray device vendor at the time of delivery of the device will provide the DTO with a delivery proof checklist at this stage.
- 3.1.2 The delivery checklist will have the below major components apart from charging cables, charging station, connecting cables, 3 pin socket and spare batteries:
- 3.1.3 Post delivery and its inspection, the delivery checklist will need to be duly filled in and signed by DTO or Facility-In Charge at the time of device delivery.

S.No	Ultraportable HH X-ray device major components	No. of units
1	Generator Model: Mine 2.1 ALNU X-Ray along with Generator Stand	1
2	X-Ray Generator tripod Stand	1
3	Detector Model:14HQ901G-B (14" x 17") LG Oxide Detector	1
4	Detector tripod Stand	1
5	CAD software for unlimited scans over 3 years	1
6	PACs (Picture Archiving and Communicatins System) software system to store scans over 3 years [cloud based]	1
7	Laptop	1
8	Case/bag for packing and transportation with number coded lock	1
9	External charging system-84150mah battery pack	1

- 3.1.4 The sample of the delivery checklist is provided in *Annexure E*
- 3.1.5 The device will be delivered by HHXray vendor to the facility mentioned in the procurement letter/ registration letter.
- 3.1.6 An engineer would be sent by the HHXray vendor at the time of delivery.
- 3.1.7 The DTO and facility In-charge and NTEP-District Programme Coordinator (if available) are mandated to be present at the time of device delivery. The RSO is an optional attendee. In cases where NGO Partner is conducting the activity, the team should also be present during this process.
- 3.1.8 DTO/ facility In-charge should prepare the delivery checklist in 2 copies and signed, to verify all parts of the package are delivered successfully. One copy of the same will be kept with DTO or facility In-charge and another copy can be handed over to the representative of the vendor.

- 3.1.9 The SPOC should be kept informed about the device delivery through an email with a scan of the signed delivery checklist.

3.2 Device Installation

- 3.2.1 The DTO, facility In-charge, engineer (sent by HHXray device vendor), NTEP-District Programme Coordinator (if available) and radiographer/ x-ray technician are mandated to be present at the time of device installation. The RSO is an optional attendee. In cases where NGO Partner is supporting the district, that team should also be present during the installation.
- 3.2.2 The engineer, post installation, will conduct a demo of the HHXray device including the software and generate an installation report. At this point, a few sample x-rays can be taken to ensure that the generator and detector and CAD-AI software are all in working condition.
- 3.2.3 DTO will be responsible for inspecting, signing & stamping of the report.
- 3.2.4 DTO to make a copy of the 'On-spot' (signed & stamped) installation report and hand the original back to the engineer (to be taken back to the HHXray device vendor).
- 3.2.5 ***The SPOC must monitor the progress and be kept informed about the HHXray and CAD-AI installation. DTO to share the scanned copy of the installation report with the STO with copy to SPOC.***

3.3 Quality Assurance

- 3.3.1 As part of the AERB requirements, the HHXray vendor must conduct a Third-Party Quality Assurance (QA) post installation. The DTO and facility-in-charge are mandated to be present at the time of the Quality Assurance process. The RSO is an optional attendee. In cases where NGO Partner is supporting the district in activity, that team should also be present during QA.
- 3.3.2 QA vendor to generate 'On-spot' summary report.
- 3.3.3 DTO/ facility-in-charge should sign and stamp 'On-spot' QA Summary report.
- 3.3.4 The vendor should send the detailed QA report to DTO through courier, within 7 days of visit.
- 3.3.5 DTO to email (1) Installation report (2) QA summary report (3) Detailed QA report to the STO with copy to SPOC and HHXray vendor.
- 3.3.6 State TB SPOC should oversee and monitor the timely completion of the Quality Assurance process.

In the 8 states, where NGO-WJCF is expected to support, the state lead will facilitate the process between the vendor and DTO.

3.4 Applying for Operational License

- 3.4.1 After receiving the (1) Installation report (2) QA Summary Report (3) Detailed QA report, the HHXray device vendor will fill in the Operational Licence form (*supported by DTO/Facility-in charge for log-in details*) and upload the three reports *through the eLORA account*.
- 3.4.2 The Steps to be followed over the eLORA website are: *Regulatory Forms -> Medical Diagnostic Radiology-> Licence for Operation*



- 3.4.3 Select the equipment ID (This will auto-appear through a drop down) → Agree to Terms and conditions → Press submit button for submission of your application form.
- 3.4.4 Post submission, the HHXray vendor will drop a confirmation to the DTO on submission of the application, with a copy to the STO and SPOC.

Operational license form as sample provided in Annexure F

- 3.4.5 Post approval, the **AERB issued Operational License** will be available to be downloaded from the portal. The expected duration for approval is around 30 days.
- 3.4.6 A copy of the Operational license to be carried along with HHXray device at the field activity camps.

The sample Operational license is provided in Annexure G

- 3.4.7 The STO and SPOC should be kept informed throughout the process of obtaining the Operational license so that s/he can support if required. DTO to share the scanned copy of the Operational license with the STO and SPOC via email.

Section 4: Radiographer Training

4.1 Training of Radiographer for device usage

- 4.1.1 The radiation hazard is almost zero/ negligible as per the claim of company. The radiation exposure is 1/10th from HHXray compared to convention digital x-ray. Moreover, the HHXray device and operations can be conducted by any layman person with minimal training. However, as per the current AERB guidelines, radiologist and/or radiographer cum x-ray technician should be required for operation of x-ray machines including portable x-ray devices.
- 4.1.2 At the time of installation, the engineer should have already provided on-site training to DTO, NTEP-DPC, facility In-charge and radiographer / x-ray technician.
- 4.1.3 After completing the installation of all the machines in the states, the State TB Cell should organize a virtual training for all the DTO and district teams including NTEP-DPC and radiographer / x-ray technician for the training on the HHXray. This training should reiterate the essential information required by radiographers while operating the device. This would entail instructions on device usage, necessary safety precautions, usage of AI and using the information system for data capturing and reporting.
- 4.1.4 In cases where an NGO Partner is conducting Active Case Finding activity and have the Radiographer hired, they should undergo training. The cost should be borne by the employing organization.

Section 5: Operational guidance for utilization of HHXray device

5.1 Overview: HHXray provided under the project is fit for utilization in the field condition, during health camp or health melas organized by the state/district for TB screening and during active case finding survey. It is suggested that the camps for TB should be set up as “General Health Camps” offering additional services, for e.g., NCD screening which includes BMI and Random Blood Sugar (RBS) testing and Blood Pressure monitoring. The nearest Health & Wellness Centre (HWC) would additionally facilitate other diagnostics such as measurement of anthropometry, blood pressure, random blood sugar. The DTO should require to co-ordinate this service offering by sensitizing the general health system. This has a two-fold advantage, firstly of reducing the stigma related to TB in the community, and secondly it allows for systematic integration – reducing costs & optimizing utilization of Front-line workers.

5.2 Pre-Camp Phase (Planning, Stakeholder Alignment & Mobilization).

- 5.2.1 **Advance Tour Planning (ATP):** Advance Monthly Planning exercise with Senior District Health Officials (DTO, CMHO/CMO) to finalize list of Camp dates and locations based on multiple factors such as TB case-burden, presence of vulnerable population, unavailability of x-ray, hard-to-reach area etc. The micro plan prepared by the district team for active case finding in the community should also be utilized for preparing ATP. The CMHO/CMO will support the DTO by sharing the ATP with the BMOs and therefore ensuring presence of CHO/ASHA/ANM/VHN for camp activities.
- 5.2.2 **Engaging with stakeholders** at various levels of block and village health system, panchayat leaders & front-line workers to build a micro-strategy.
- 5.2.3 **Smart and targeted mobilization:** Targeted mobilization based on local context and pre-mapping of vulnerable groups through direct (door-to-door visits, meeting at congregation spots) and indirect mobilization (including IEC/BCC) strategies by engaging front-line workers as catalysts. Local community influencers are involved to increase dissemination and enhance community engagement.

5.3 Camp Day

- 5.3.1 Once an individual visits the camp, their basic health tests are conducted by front line workers, health facility doctors, community health officer and ANM. These could be RBS, Blood Pressure, BMI etc. Any suspected NCD cases are further referred for a visit to the health facility doctors.
- 5.3.2 As a next step, the individual is provided with TB specific verbal screening, such as symptom screening and vulnerability mapping (including commonly found risks, clinical risks, social risks). All the individual screened for TB during active case finding should be enrolled in Ni-kshay.

The data should also be again entered in system called Radiology Information System (RIS) prepared by WJCF in 33 sites where NGO partner is supporting the activity.

- 5.3.3 Along with the verbal screening, a chest x-ray (CXR) by HHXray is offered to an individual who is either vulnerable or symptomatic. The AI highlights the likelihood for the CXR to be suggestive of TB or any other chest abnormality. Telemedicine would aid on reading x-ray.
- 5.3.4 Sputum is collected at camp for presumptive TB cases (symptomatic and/or CXR suggestive of TB). The test request should be generated in Ni-kshay by health staff. For individuals who could not produce sputum sample, the next morning collection is done by NTEP staff/ front line workers.
- 5.3.5 The sputum samples are transported by NTEP for NAAT testing. The results (positive & negative) are conveyed and updated in the Ni-kshay. The treatment is initiated, as applicable.

In cases of 33 selected sites where WJCF is expected to support ACF activity through the dedicated HR, general health staff as mentioned above should also be remain available and conduct the activity in mutual coordination. For each HHXray device, there would be 1 District NGO Supervisor (for overall camp operations), 2 Community Coordinators (for verbal screening at camp & community mobilization) and 1 Radiographer (for overall handling of HH CXR Device) are available from WJCF under the project for completion of activity.

Section 6: CXR Device Transportation

6.1 X-ray Device Transportation

- 6.1.1 To ensure safety of the device, the DTO should ensure the right mode of transportation for the device.

- 6.1.2 On the day of the ACF, the DTO/ facility In-charge to facilitate timely collection of HHXray device from the health facility.
- 6.1.3 NTEP team (STS) to inform DTO/Facility in-charge over phone/ SMS as soon as the device is collected from the health facility. Additionally, they should ensure that the device is fully charged and ready for operation.
- 6.1.4 The HHXray device should reach the camp 1 hour prior to camp start time.
- 6.1.5 The ACF team comprising of NTEP team (STS or STLS or TBHV), General Health system staff (health facility doctor, CHO, staff nurse/ VHN, Radiographer, ANM, ASHA) and NGO Partner (if applicable) to reach the facility on time to camp start time.
- 6.1.6 The team may need at least 20-30 min for set up and start the camp activity.
- 6.1.7 STS to maintain a logbook to record for camp activity: Time of Device set up & Time of Device pack up. DTO/ facility In-charge to monitor the logbook regularly. After completion of survey activity, HHXray should be safely kept back in the bag and transported to the facility.

In cases where NGO Partner is conducting ACF activities, a dedicated Radiographer is available from the project. The Radiographer will carry the device along with a dedicated driver and vehicle. Radiographer will inform DTO & NGO District Supervisor over phone when device is collected from & stored back at the health facility.

List of Annexures

Annexure A

1. AERB Portal for Procurement Letter

(<https://elora.aerb.gov.in/ELORA/populateLoginAction.htm>)

Government of India
Atomic Energy Regulatory Board
e-Licensing of Radiation Applications (eLORA) System

हिंदी संस्करण AERB Website

Guidelines and FAQ are available without login to eLORA. Please visit www.aerb.gov.in -> e-Licensing of Radiation Applications (eLORA)->Quick Help on e-LORA. You can use

In case of any difficulty/issue related to eLORA kindly contact eLORA help desk (elora.info@aerb.gov.in; 022-25990675). Unresolved matter may be escalated to Head, MAS for Medical and Research Applications (mas.rsd@aerb.gov.in; 022-25990663) and to Head, IAS (ias.rsd@aerb.gov.in; 022-25990417) for Industrial Applications. If need escalate further, may contact Head, RSD (head.rsd@aerb.gov.in; 022-25990656)

Guidelines
Diagnostic Radiology Related(Licensed Facilities, TA Equipments, QA Agencies)
Processing time for issuance of Regulatory Consents
Feedback

Frequent Queries
RP/Institute registration status | Reason for non-acceptance
Correction in e-mail id and mobile no. | Login issues | Profile/role issues | Practice issues
Check application status | Correct submitted data
Institute Registration| Step by step help | Raise an issue to AERB
Registration of RP| Training Courses| Feedback
For regulatory support you may contact Help Desk No. 022-25990675 during working days between 10:00 AM - 05:00 PM

Registration Form
Register Institute
Register Radiation Professional (RP)
Register Incoming Employer - after Initiation of Employer Change Process
Know Your Application Status
Institute Registration Application
Radiation Professional Registration Application
Verification of Consent/Document issued through eLORA

Quick help on eLORA
Login
 Institute Radiation Professional
Username*
Password*
Practice* --Select One--
Institute Role* --Select One--
Installation Type* --Select One--
Login
Forgot / not received my password

Sample of Application Form - Procurement Letter

APPLICATION TO ATOMIC ENERGY REGULATORY BOARD (AERB) FOR PROCUREMENT OF MEDICAL DIAGNOSTIC X-RAY EQUIPMENT	
This application would be considered by the Competent Authority for issuance of relevant consents under the Atomic Energy (Radiation Protection) Rules, 2004	
Application Number	:
Date of Application	:
Part A	
Institute Details:	
Name	
Permanent Address	
Landmark	
City	
State	
Postal Code	
Telephone Number	
Fax Number Email Id	
Head of the Institute Details:	
Name	
Designation	
Telephone Number(Office)	
Mobile Number	
Email Id	
Licensee Details:	
Name	
Designation	
Telephone Number(Office)	
Mobile Number	
Email Id	
Part B	
Equipment Details	
Type of equipment	Radiography (Portable)
Whether equipment to be used as vehicle mounted	<input type="radio"/> Yes <input checked="" type="radio"/> No
Expected workload	Medium
Purpose of the equipment	Medical Diagnosis
Approval required for	New Device
Name of manufacturer	

Model name	
Name of supplier	
Part D	
Attachments	
Layout drawing of proposed x-ray equipment installation(Please refer AERB guidelines)	
Part E	
UNDERTAKING	
I hereby certify that	
<ol style="list-style-type: none"> all the information submitted is correct to the best of my knowledge and belief applicable provisions of the Atomic Energy (Radiation Protection) Rules, 2004 will be strictly complied with. applicable provisions of AERB Safety Code on Medical Diagnostic X-ray Equipment and Installations, 	
AERB-SC/MED- 2 or the revised version, currently in force, will be complied with	
<ol style="list-style-type: none"> the equipment will be put into operation only after obtaining "Licence" from the Competent Authority. full facilities will be accorded by me to any authorized representatives of the competent authority to inspect this installations at any time. on receipt of AERB "Procurement Permission", I will abide by its Terms and Conditions keep AERB informed about any changes in the information furnished. 	
In case, it is found, at any stage, that the information provided by me is false and/ or not authentic, then I hereby accept that appropriate regulatory actions may be initiated against me and my institution, in accordance with the applicable Rules.	
.....End of Application.....	

The screenshot shows the online application form for AERB procurement. The 'Equipment Details' tab is active. Fields include:



- Type of Equipment*: Radiography (Portable)
- Whether equipment to be used as vehicle mounted*: Yes No
- Expected workload*: High (> 70 patients/day)
- Purpose of the Equipment*: Medical Diagnosis
- Approval required for*: New Device
- Model Name*: MINE2.1
- Name of Manufacturer*: OTOM Co., Ltd., Korea
- Name of Supplier*: LABINDIA HEALTHCARE PRIVATE LIMITED, Gurgaon, India

A search window is open showing results for 'Supplier Details - Google Chrome' at 'elora.aerb.gov.in/ELORA/mdXrayEquipProcurement...'. The search results table is as follows:

Select	Supplier Name	Location
<input type="radio"/>	LABINDIA HEALTHCARE PRIVATE LIMITED	Gurgaon, India

Showing 1 to 1 of 1 entries

Sample of Procurement Letter

भारत सरकार परमाणु उर्जा नियामक परिषद् विकिरण सुरक्षा प्रभाग				GOVERNMENT OF INDIA ATOMIC ENERGY REGULATORY BOARD RADIOLOGICAL SAFETY DIVISION	
Case File Number:			Issue Date:		
Document Number: :			Expiry Date:		
PERMISSION FOR PROCURMENT OF X-RAY EQUIPMENT					
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, 2004, (AE/RP/R-2004) the Atomic Energy Regulatory Board (AERB) hereby grants permission to CHEST CLINIC AND HOSPITAL MUNICIPAL CORPORATION for procurement of following X-ray equipment.					
Type of Equipment	Model name	Manufacturer	Supplier	Quantity	
Radiography (Portable)				1	
TERMS AND CONDITIONS					
1. As Licensee, shall abide by applicable requirements spelt out in AE (RP) R 2004, AERB Safety Code (AERB/SC/Med-2) and Amendments issued thereof.					
2. This equipment shall be installed in the layout as per details submitted to Regulatory Body; in case of any changes the revised layout details shall be intimated before installation.					
3. The installation & commissioning of the equipment shall be carried out only by the Authorised Supplier/Service Agency.					
4. No person below age of 18 years shall be employed as radiation worker.					
5. Duly qualified and trained personnel shall be employed before the commencement of operation of the facility.					
6. Application for Licence shall be submitted within three months from the date of installation.					
(This is an electronically generated letter and hence signature is not required)					
CHEST CLINIC AND HOSPITAL MUNICIPAL CORPORATION					
NEW DELHI, DELHI-110065					
Note: This document is also available at www.aerb.gov.in/eforms					
 परमाणु उर्जा नियामक परिषद्, विकिरण सुरक्षा, आणविक सुरक्षा, मुंबई 400094 (महाराष्ट्र) Atomic Energy Regulatory Board, Radiation Division, Anandkhind Nagar, Mumbai 400094 (Maharashtra)					
वेबसाइट/Website: www.aerb.gov.in		दूरभाष/Telephone: 91 22 2699 0656		फैक्स/Telefax: 91 22 2699 0656	

Sample of Delivery Checklist

PREPARED AND ACCOMPLISHED BY:						
Name:		Designation/Position:		Date:		
VERIFIED BY						
Name:		Designation/Position:		Date:		
Machine Serial number:						
Detector Serial number:						
Workstation/Laptop Serial number:						
Name of Facility:						
Facility Address:						
REQUIREMENT <i>(please check "yes" if complied, "no" if not complied, and N/A if not applicable)</i>		Model No. S.No	&QTY	YES	NO	N/A
All system components required						
1) X-Ray Generator with inbuilt battery (1 unit),			1			
1a) 1 charger cable (Sr. No. Not applicable)			1			
1b) 1 wireless remote control and accessories (Sr. No. Not applicable)			1			
2) X-Ray Generator Stand (1 unit), (Sr. No. not applicable)			1			
3) X-Ray Detector (1 unit) inclusive of 1 detector battery			1			
3a) 1 No. Extra Detector Battery.			1			
3b) 1 No. detector charger along with 1 no. charging cable. (Sr. No. not applicable)			1+1			
4) X-Ray Detector Stand (1 unit) (Sr. No. not applicable)			1			
4b) 1 unit detector frame, (Sr. No. not applicable)			1			
5) Portable workstation/PC-console and/or portable remote control-station (1 unit), inclusive of 1 no. inbuilt battery			1			

5b) 1 No. charger adapter (Sr. No. not applicable)		1			
6) CAD software for data management and communication (pre-installed software in portable workstation) (Sr. No. not applicable)		1			
7) Hard Case for packing and transportation (Sr. No. not applicable) 1 unit		1			
7a) 1 No. (number coded) lock (Sr. No. not applicable) 1 unit		1			
8) External Battery Bank 1 unit, 1 unit charging cable		1+1			
8a) 1 unit charging cable (Sr. No. not applicable) (Extension board)		1			
Accessories (Please add more row for accessories details if requires)					
<i>*PLEASE PROVIDE DOCUMENT/ PICTURES FOR EACH COMPONENT</i>					




Signature of Installation Engineer	Designation:
Contact/Mobile No:	
Signature of Approval Authority:	Designation:
Contact/Mobile No:	

Sample of Operational License Application Form

APPLICATION TO ATOMIC ENERGY REGULATORY BOARD (AERB) FOR LICENCE FOR OPERATION OF MEDICAL DIAGNOSTIC X-RAY EQUIPMENT						
Application Number	: 22-979220					
Date of Application	: 15/09/2022					
Part A						
Institute Details:						
Name	:					
Permanent Address	:					
Landmark	:					
City	:					
State	:					
Postal Code	:					
Telephone Number	:					
Fax Number	:					
Email Id	:					
Head of the Institute Details:						
Name	:					
Designation	:					
Telephone Number(Office)	:					
Mobile Number	:					
Email Id	:					
Licensee Details:						
Name	:					
Designation	:					
Telephone Number(Office)	:					
Mobile Number	:					
Email Id	:					
Part B						
Employee Details (Radiation Professionals) :						
SRL No	Name	Date of Birth	Designation	Qualification	Experience	PMS No.
RSO Details :						
SRL NO	Name	Designation	PMS No.	Valid Till	Email Id (Off)	
Employee Details (Radiation Workers) :						

SRL NO	Name of Radiation Worker	Role	Educational Qualifications	PMS No.				
1		Operator-Medical diagnostic x-ray facility, Medical Practitioner-Medical diagnostic x-ray facility	X-Ray Technologists Course					
Safety Tool Details:								
SRL No	Instrument ID	Instrument Type	Make	Model	Type Of Detector	Se. No.	Availability	Last Calibration Date
1	SE-0123900	Protective Apron	NA	NA		NA	Available	
2	SE-0123899	Mobile Protective Barrier with Viewing Window	NA	NA		NA	Available	
Part C								
Equipment Details:								
Application for		: Licence for operation of new x-ray equipment						
Equipment Id		: G-XR-166874						
Type of equipment		: Radiography (Portable)						
Manufacturer name		:						
Model name		:						
Equipment Serial no		:						
Name of the person designated as RSO for this equipment		:						
Service Agency responsible for QA		:						
Type approval no		: XRES42881						
Part D								
UNDERTAKING								
I hereby certify that								
1. All the information submitted in this application is correct to the best of my knowledge and belief								
2. Applicable provisions of the Atomic Energy (Radiation Protection) Rules, 2004 will be strictly complied with.								
3. Applicable provisions of AERB Safety Code on Medical Diagnostic X-ray Equipment and Installations, AERB/SC/MED- 2 or the revised version, currently in force, will be complied with.								
4. The equipment will be put into operation only after obtaining 'Licence' from the Competent Authority.								
5. Full facilities will be accorded by me/us to any authorised representatives of the competent authority to inspect this installations at any time;								
6. All necessary facilities will be provided to the RSO to discharge his duties and functions effectively.								
7. On receipt of 'Licence', I will abide by the Terms and Conditions of 'Licence'								

Sample of Operational License

भारत सरकार परमाणु ऊर्जा नियामक परिषद् विकिरण संरक्षा प्रभाग		 GOVERNMENT OF INDIA ATOMIC ENERGY REGULATORY BOARD RADIOLOGICAL SAFETY DIVISION	
Case File Number:		Issue Date:	15/09/2022
Document Number:		Expiry Date:	15/09/2027
REGISTRATION FOR OPERATION OF MEDICAL DIAGNOSTIC X-RAY EQUIPMENT			
<p>In exercise of powers conferred under Section 16 and 17 as applicable of 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 Registration in favour of DR. MAMTA PATNAIK to operate the following diagnostic radiology equipment located at KRILOKARI, NEW DELHI, DELHI-110065 for Medical Diagnosis purposes.</p>			
Type of Equipment	Manufacturer	Model	Equipment Id
Radiography (Portable)			G-XR-166874
<p>The _____ are hereby identified as the Employer and licensee respectively, 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 operation of the above equipment.</p>			
<p>The Employer and Licensee are responsible for,</p> <ol style="list-style-type: none"> I. Ensuring compliance with the relevant provisions of the <ol style="list-style-type: none"> i. Atomic Energy Act, 1962 ii. Atomic Energy (Radiation Protection) Rules, 2004; iii. AERB Safety Code (AERB/SC/Med-2), 2001, Amendment 2012, and the revisions thereof iv. All applicable Safety Codes, Guides issued by AERB for the above practice and regulatory documents issued by AERB from time to time. v. Directives issued by Competent Authority from time to time. II. Ensuring compliance with terms and conditions stated overleaf. 			
<p>Note: This Registration is issued ONLY from the RADIATION SAFETY VIEW POINT. All other clearances shall be obtained from concerned state/central/local authorities as applicable.</p>			
		 Dr. P. K. Dash Sharma Head, RSD	
NEW DELHI, DELHI-110065			
CC: CORPORATION, NEW DELHI		CHEST CLINIC AND HOSPITAL MUNICIPAL	
<p>Note: This document is also available at www.aerb.gov.in/elora</p>			
 <p>परमाणु ऊर्जा विनियामक परिषद्, नवदिल्ली, भारत, 400094 (महाराष्ट्र) Atomic Energy Regulatory Board, Nyaynagar, Arushaktinagar, Mumbai 400094 (Maharashtra)</p>			
वेबसाइट/Website: www.aerb.gov.in		दूरभाष/Tel: 91-22-2599 0650	
		फैक्स/Fax: 91-22-2599 0650	

List of 33 sites supported by WJCF in the delivery, installation and field implementation

Sl No	State	District	No of machines	WJCF's Implementation site (Yes/No)
1	Bihar	Muzaffarpur	2	Yes
2	Bihar	Darbhanga	2	Yes
3	Bihar	Purba Champaran	2	Yes
4	Bihar	Saran	1	Yes
5	Bihar	Purnea	1	Yes
6	Uttar Pradesh	Deoria	1	Yes
7	Uttar Pradesh	Kushinagar	1	Yes
8	Uttar Pradesh	Ambedkar Nagar	1	Yes
9	Uttar Pradesh	Agra	2	Yes
10	Uttar Pradesh	Maharajganj	1	Yes
11	Uttar Pradesh	Varanasi	1	Yes
12	Uttar Pradesh	Gorakhpur	1	Yes
13	Haryana	Faridabad	1	Yes
14	Haryana	Hisar	1	Yes
15	Rajasthan	Jaipur II	1	Yes
16	Rajasthan	Jaipur II	1	Yes
17	Rajasthan	Udaipur	2	Yes
18	Gujarat	Ahmedabad MC	2	Yes
19	Gujarat	Surat MC	2	Yes
20	Gujarat	Kutch	2	Yes
21	Gujarat	Jamnagar	1	Yes
22	Uttarakhand	Haridwar	1	Yes
23	Uttarakhand	Rudraprayag	1	Yes
24	Ladakh	Leh	1	Yes
25	Kerala	Pathanamthitta	1	Yes