

WE MAKE THINGS HAPPEN FOR YOU



RadiTech

A Centre of Excellence

A Team of Experienced Engineers and Professionals Can Provide Complete Solution of Radiation Processing Plant Along with Multipurpose Cold Storage and Integrated Pack House for Fruits and Vegetables.

Main Products and Services :-

- ❖ **Complete Process Automation with PLC/HMI and SCADA system.**
- ❖ **Irradiators (Multipurpose & Research).**
- ❖ **Radiation Protection System.**
- ❖ **Fabrication of Transport & Storage Container.**
- ❖ **Hot Cells.**
- ❖ **Customized Radiation Equipment.**
- ❖ **Multipurpose Cold Storage.**
- ❖ **Integrated Pack House for Fruits & Vegetables.**

Contact us :

Shri. S. Bhattacharya, Managing Director

RadiTech Hydromatics Pvt. Ltd.

AN ISO : 9001-2015 Company.

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Pioneering & Progressing on the Track of Radiation Technology.

OUR FULL SPECTRUM OF IRRADIATORS OF DIFFERENT CATEGORY.

CATEGORY I : Dry Storage Irradiator for Research Purpose

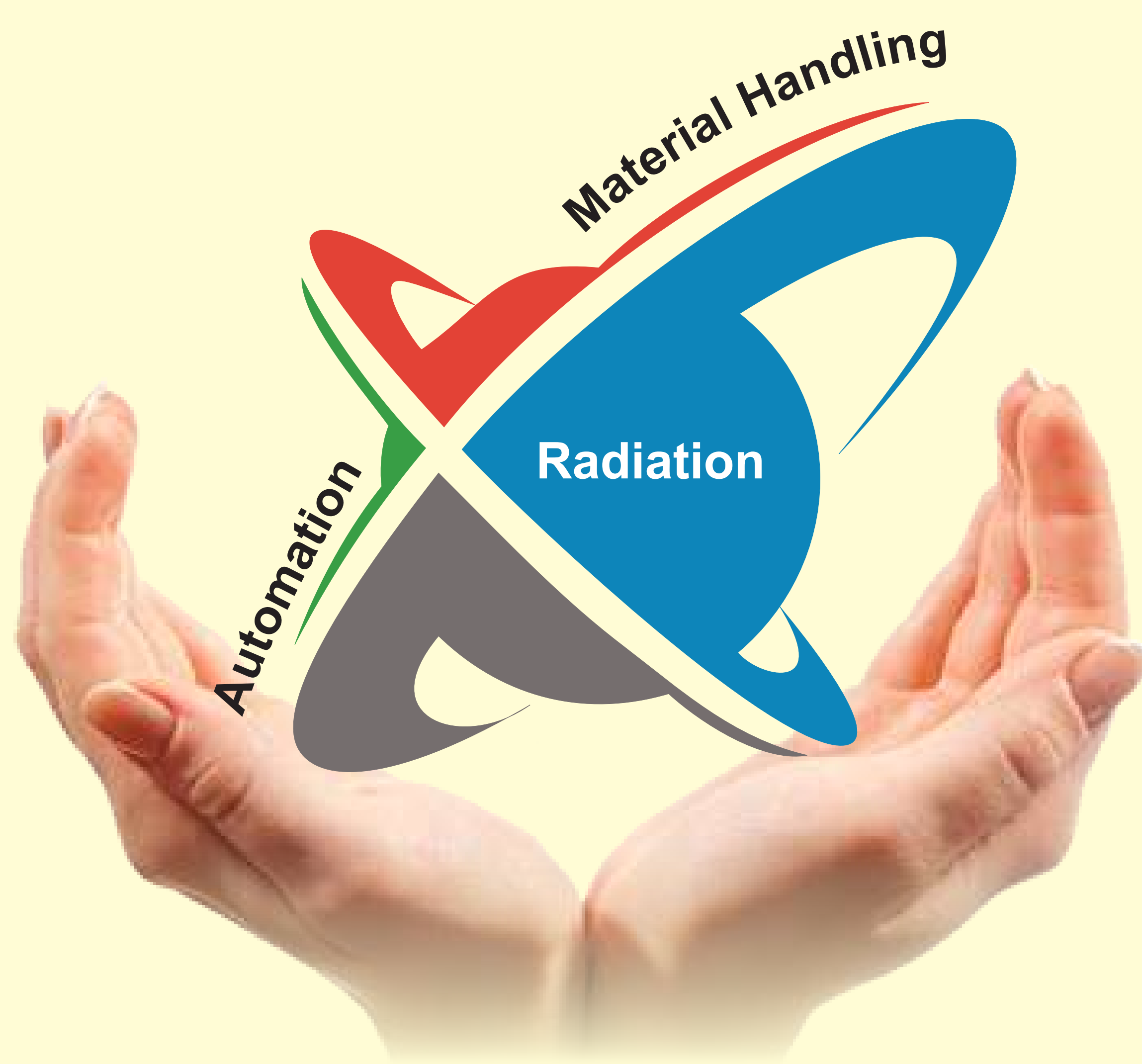
CATEGORY II : Dry Storage Batch Type Panoramic Irradiator of 100KCi Design Capacity.

CATEGORY IV :

- **Continuous, Overhanging Conveyor with Tote Box Irradiator for Sterilization of Medical Product, Design Capacity 5 Mci.**
- **Continuous Multipurpose Irradiator with Split Type Source Frame with shuffle Dwell Roller Bed Conveyor, Maximum Design Capacity 3MCI.**
- **Continuous Irradiators with Split Type Source frame for Agro Products. Maximum Design Capacity 500 Kci.**
- **Customised Designed Irradiator for chilled and Frozen Marine/Meat Product along with Insulated Product Box and Cell Refrigeration System.**
- **Customised Design for Irradiation of Dry Sludge, Complete Project Design from Receiving of Sludge to Packing of Finished Product.**

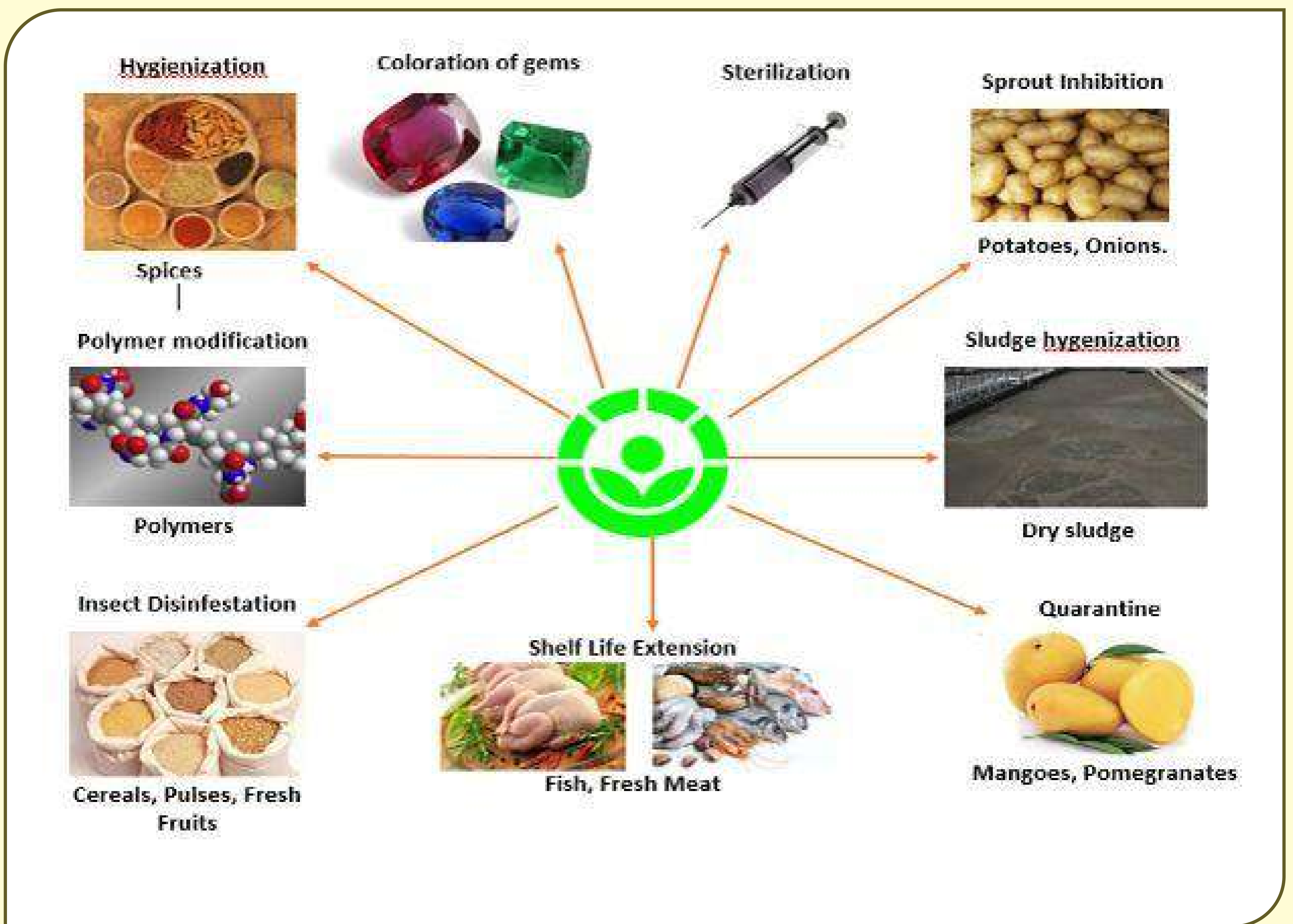


WE PROVIDE COMPLETE SOLUTIONS OF DESIGN, CONSTRUCTION, INSTALLTION AND COMISSIONING OF MULTIPURPOSE COLD STORAGE AND INTEGRATED PACK HOUSE FOR FRUITS AND VEGETABLES AS PER APEDA GUIDELINES.

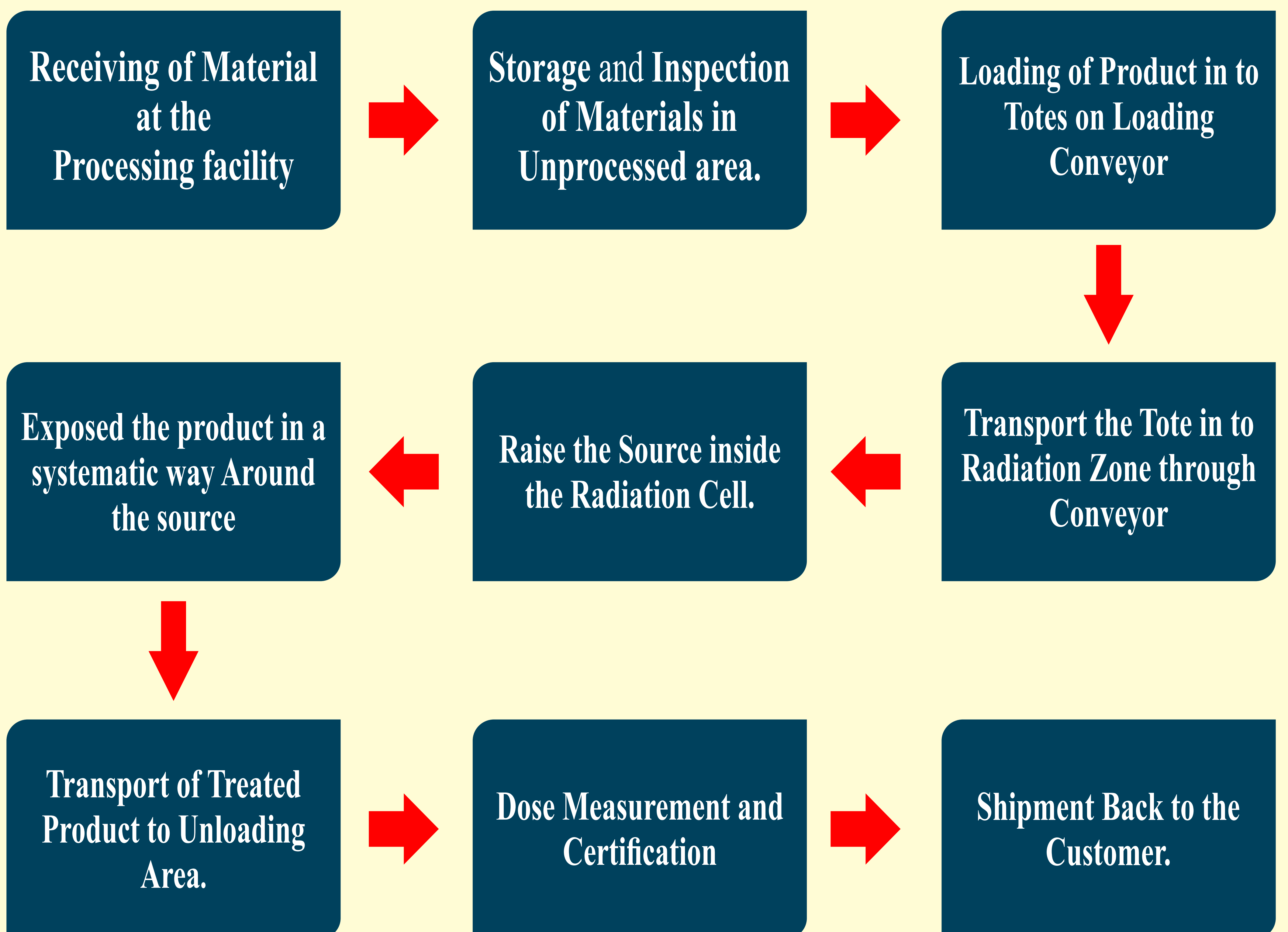


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PROCESS FLOW OF GAMMA IRRADIATION





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CHRONOLOGY OF SETTING UP OF RADIATION PROCESSING PLANT

Cluster Analysis and identification of Product and Quantity to be Irradiated.

Selection of Site as per Regulatory Guidelines and Geotechnical Investigation of Site.

Preparation of Architectural, Structural, Electrical and Mechanical Design & Drawing along with Safety Analysis Report and submission to Atomic Energy Regulatory Board and Approval.

Signing of MOU with Board Of Radiation and Isotope Technology (BRIT) for Source Supply, Loading of Sources and Commissioning Dosimetry.

Commencement and Completion of Manufacturing of Plant and Machinery and civil Work, Installation of Plant and Cold Commissioning.

Submission of Pre-Commissioning Safety Reports to AERB and obtaining Clearance for Source Loading from AERB.

Procurement of Source and Manpower, Source Loading and Commissioning Dosimetry by BRIT.

Submission of Final Safety Analysis Report to AERB and getting it Approved for Commencement of Commercial Irradiation Service.

**We Believe that Pertinent Motivation, Determination, Technology
and Teamwork Results in Expanding Horizon.**

YOUR GROWTH, YOUR SUCCESS AND YOUR SURVIVAL WILL DETERMINE OUR EXISTENCE.

WE RISE BY LIFTING OTHERS

Why **RadiTech**

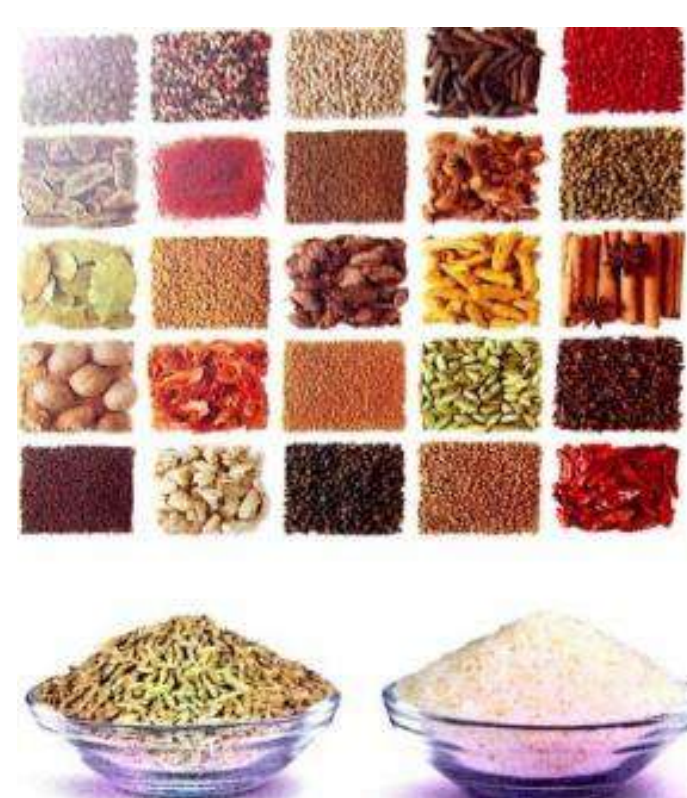
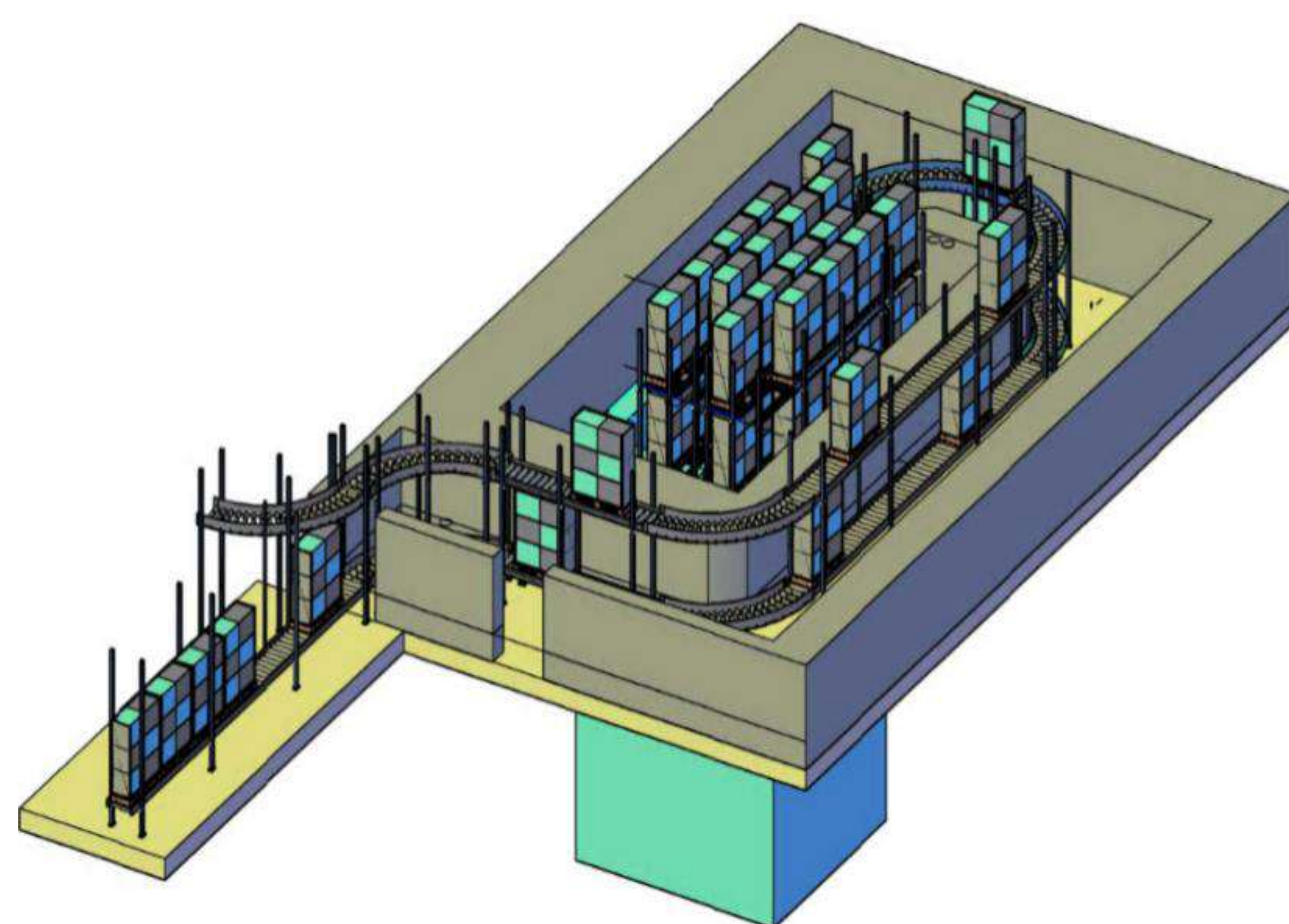
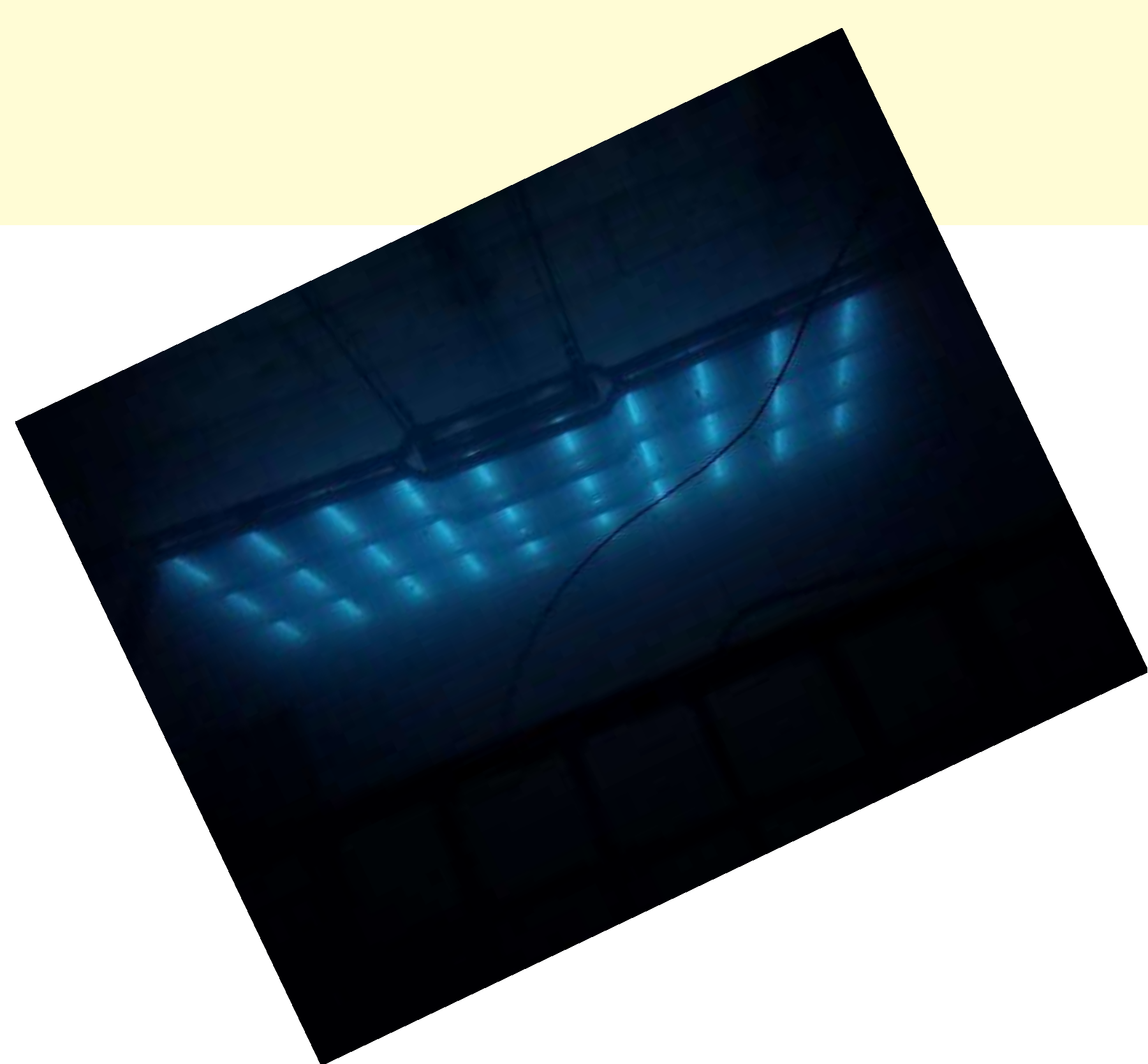
- # **Comprises of Industry Experts who have Relevant Experience in their respective Fields and Stand united in their Passion to Deliver the Quality Services.**
- # **It is our Endeavour to make our Customer's Business more Successful and Sustainable by constantly Educating them.**
- # **Our team can Provide the total solution under one Roof right from Conceptualisation of Project to Commissioning.**
- # **Dedicated Engineering Team for Designing and Manufacturing of Sophisticated Conveyor System, Radiation Equipment, SS –Fabrication, Lead Pouring etc.**
- # **Dedicated In House Electrical and Automation Team taking care of Design, Manufacturing of Control Panel alongwith PLC & SCADA Programming. We have our in house Programming Team and not depended on third party.**
- # **We Provide Complete Design of shielding with Software Analysis. Provide Detail Structural Design of Radiation Cell, Source Storage Water pool , Facility Layout with Storage Area including experienced Civil supervisor at site during Construction.**
- # **Provide Services for Process Development, Multiple Dose Mapping studies / Product Qualification require for**
 - **Variation of product Weight, Bulk Density and Box Size.**
 - **Configuration of Product Boxes within the Tote Box.**
- # **Complete Operational and Maintenance Support and on Job Training of Man Power. We Undertake Annual maintenance Contract of existing Radiation Processing plant.**
- # **We Undertake Modification, Upgradation, Recommissioning and Development of Spares of existing Irradiators. Our efficient team members can provide Complete Services at Customer's Site.**
- # **Assistance in Preparing of Detail Project Report for Domestic Project and Sanction of Grant in Aid from Ministry of Food Processing, Govt of India, Under Cold Chain Scheme.**



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Radiation Processing Plant

Radiation Processing Plant Facilitates the Exposure of products to Ionizing Radiation, in a Highly Controlled Environment, at levels to create desired, Improvement Effects in Exposed Products.



Category IV, Wet Storage Multipurpose Gamma Irradiator.

Batch cum Continuous Operation with Split Type Source Frame.

Maximum Design Capacity 3MCi. Product Overlap Design.

Two Tier Roller Bed Conveyor System with Inside Shuffling. Mechanism. Maximum Speed 60 Boxes/Hr. Aluminium Tote Box of 300 Kg Capacity.

Applicable Codes and Guidelines.

AERB safety standard for land based Stationary Gamma Irradiators (Design Code)
AERB/RF-IRRAD/SS-6 (Rev-1) --2007.

AERB/RF-RPF/SC-1 (Rev-1) 2016 For Radiation Processing Facility.

AERB/RF-Rs/SG-1 – 2011 Security of Radiation Sources in Radiation Facilities.

AERB/RF-RPF/SG-1 – 2015 Plant Commissioning/ Re-commissioning Dosimetry for food and Allied Products in Gamma Radiation Processing Facilities for category II & IV

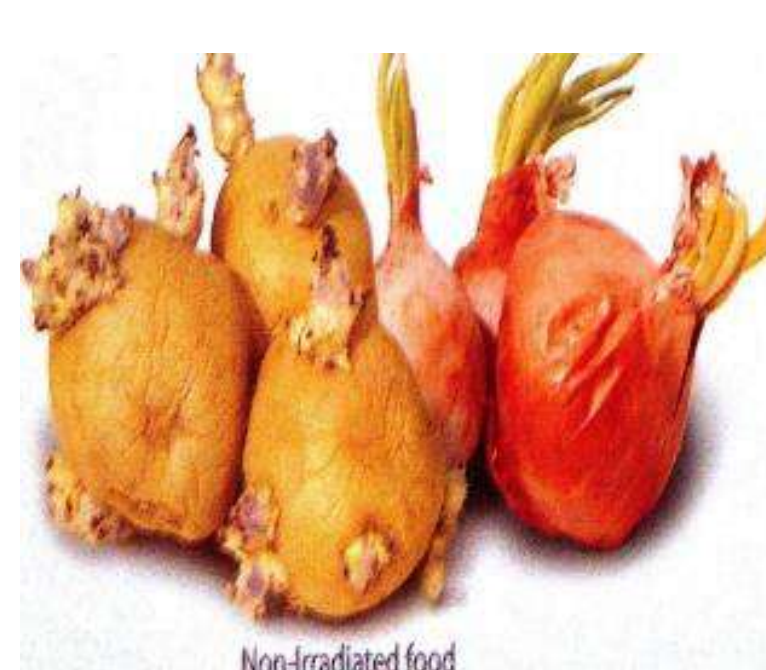
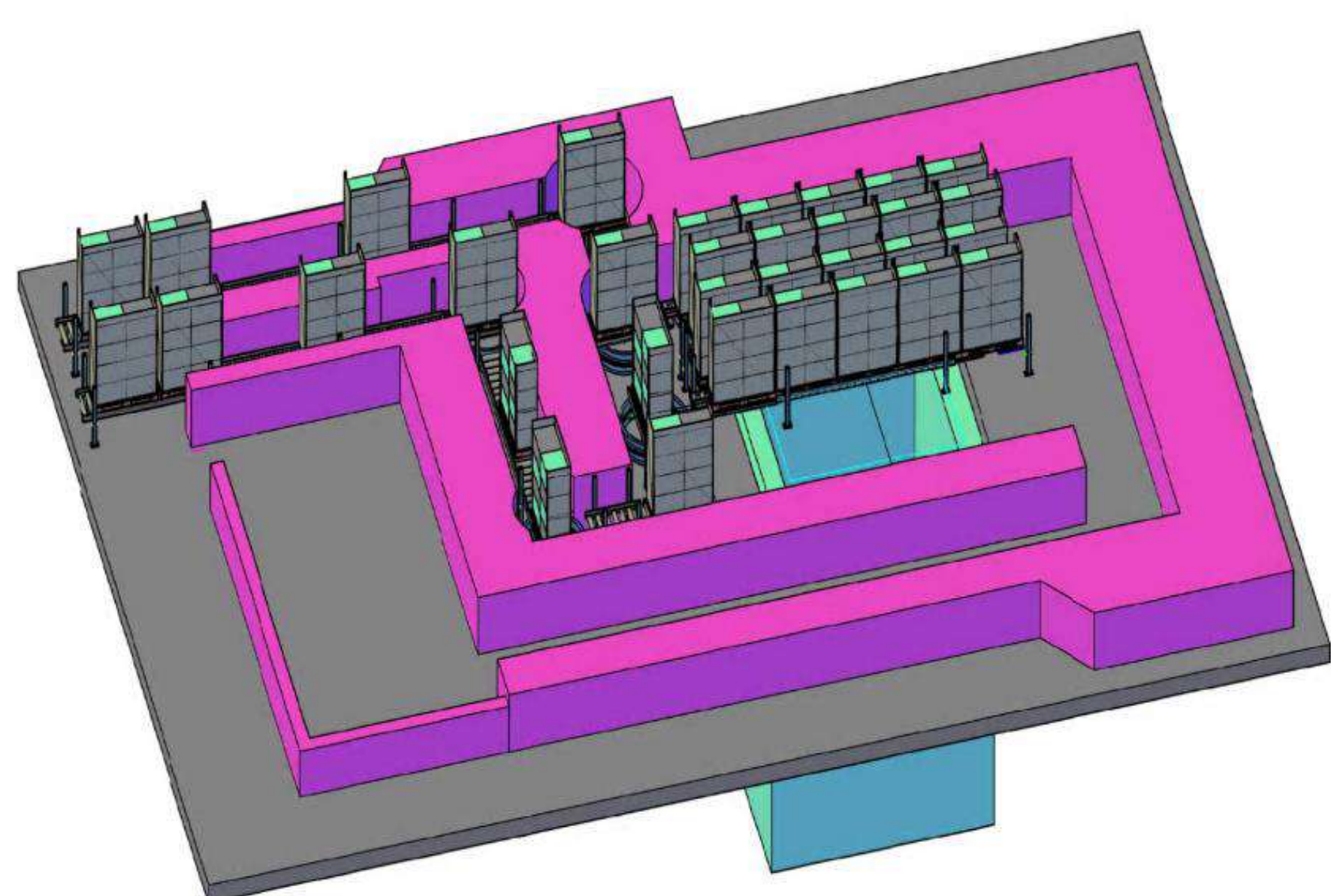
AERB/RF/SM/G-3 - 2014 Regulatory Inspection and Enforcement in Radiation Facilities..



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LOW DOSE IRRADIATOR FOR AGRO PRODUCTS.



Continuous Irradiator with Split Type Source frame for Agro Products. Maximum Design Capacity 500 KCi.

Maximum Throughput for Potato 20Tons/Hr.

Combination of Cold Chain and Gamma Radiation Processing Preserving the Quality Attributes of Agro Product

Phytosanitary Irradiation Treatment in India----
NPPO India and USDA-APHIS Signed an Work Plan in 2006.

Agencies Involved-

- ♦ APEDA
- ♦ NPPO
- ♦ AERB
- ♦ DAE
- ♦ FSSAI
- ♦ Irradiation Facility.
- ♦ Regulators of Importing Country.

CHALLENGES

Post-harvest Handling of Agro Produce.

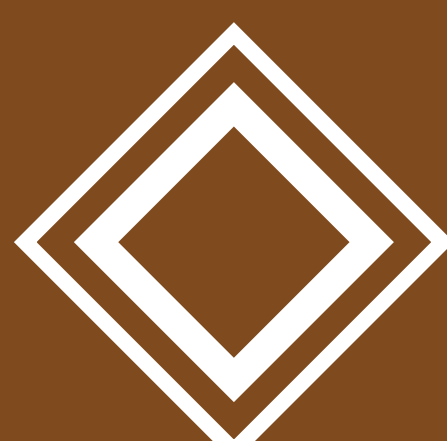
Pre and Post Irradiation management.

Strategic Location of plant to Reduce Transportation.

Mechanized Handling of Agro Product at RPP.

Cost Effectiveness over existing Technology.

India is the Largest Producer of Mango -10 Million Tons. Rank Second in Potatoes, Onion, Cauliflower, Eggplant, Cabbage Etc



Several other Seasonal Product can be Added. More Countries Approve Irradiation as a Preferred Phytosanitary Treatment Method.