

concluding remarks of the Director, who wished that the proceedings of the day would have definitely ignited the young minds and enticed them to the wonderful world of science and technology. The whole event was managed, under being supervision of Dr. S. V. Nakhe, Director, RRCAT, by an Organizing Committee with Shri Rajesh Arya as the Convener and Dr. S. K. Majumder as the Co-convener. The committee had made elaborate arrangements for the event with the help and cooperation of a large team of experts, employees, volunteers and security personnel to make the event a grand success.

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### N.6: Industrial safety in RRCAT

The Fire and Safety Section of RRCAT is dedicated to ensuring a safe work environment in RRCAT. In order to do this, various safety inspection surveys and qualifying tests are being conducted. Various safety inspection teams are regularly monitoring, reviewing, and ensuring the implementation of various safety-related issues in different labs and buildings of RRCAT.

*Illumination and noise survey in RRCAT:* Provision for suitable work environment for the technicians is essential for achieving higher production and productivity for workshops, process plant and other manufacturing units. Potential source of noise emission include various machines like compressors, water jet cutting machines, plasma cutting machine, plate shearing machine, etc. Wherever possible such source should be muffled by suitable arrangement. Since poor lighting and noisy condition have negative effects, repeated and prolonged exposure to excessive noise level may lead to hearing impairment and also other related problems like lack of concentration, irritation, headache, etc. In order to assess the status of illumination and noise levels, a regular systematic illumination and noise level survey in various relevant area of workshop and labs is being conducted by Fire and Safety Section of RRCAT.



*Noise level survey in workshop.*

*Issuing of height passes for construction labour:* Safety precautions need to be taken, while working at height to prevent any accidents. A person working at height has to undergo height pass test. In the first stage, contractor obtains medical certificate issued by qualified doctor, which includes a medical test of the person who has applied for height pass and sequentially it is verified by RMC doctors. In the second stage, this person walks on a platform at certain height and also qualifies the rope climbing test. After qualifying all the stages, height pass is issued.



*Photograph during physical test for issuing of height passes to construction labour.*

Along with this, regular and vigilant safety inspections are undertaken. In RRCAT, various safety inspection teams, which include Internal safety inspection teams, Safety review sub-committees for EAG, PAG, LG, MSG, TDSG, and Apex Safety Committee (ASC) are regularly monitoring, reviewing, and ensuring the implementation of various safety-related issues in different labs and buildings of RRCAT.

For Internal Safety inspections, two teams are working. Team A conducts safety inspections of accelerator buildings and Team B inspects laser laboratories and buildings. Team A ensured that various safety aspects like radiation fields and other hazardous factors in accessible areas were within the relevant regulatory stipulated limits and no one remained trapped or was present inside the areas with high radiation fields during operation while the primary particle beam was switched on. There was protection against noxious fumes and gases that might be formed during the accelerator beam operation or in radiation processing of materials and an efficient fire protection system was also in place. Similarly, Team B ensured safety aspects related to lasers like sufficient availability of laser safety goggles for eye protection, proper alignment of beams and optical components, etc. A Construction Safety Committee is also working to look into safety concerns at construction sites. This Committee ensured that every worker who was involved at construction site was trained to use Personal Protective Equipment (PPE), like full body harness, helmet, shoes and gloves, etc. This Committee also conducted physical test for the labours, working at height and height passes were issued to the successful candidates. All other safety review sub-committees at RRCAT checked the safety issues related to design, modification, operation and maintenance works, etc., and gave recommendations to improve safety features and ensured the compliance for

shortcomings, if found. All the recommendations and reports were put up for review and approval of ASC of RRCAT. ASC also reviewed the recommendations of AERB inspection team for the relevant period.

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### N.7: Fire safety at RRCAT

*Safety skills development activities in Fire Section:* Fire and Safety Section has been always committed for enhancing safety awareness and skills of RRCAT employees through safety programme and training. To enhance fire-fighting & communication skills for meeting the requirements of any fire emergency, RRCAT employees are regularly being trained in basic fire-fighting and donning & doffing of Breathing Apparatus Set, so that they can survive, secure and save life in worsted fire emergency scenario. During last two quarters of the year, 82 RRCAT employees and 28 TASAR trainees were trained in such first aid fire-fighting training. Along with this, four classes on the subject as “How to conduct mock exercise and roles of security personnel during such exercise” were arranged & conducted by Fire Officers at RRCAT Convention Centre during their OJT program.

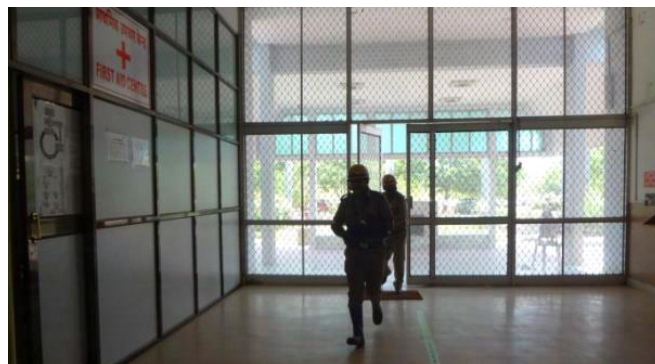


*First-aid fire-fighting training program for RRCAT employees.*

For strengthening the skills of fire personnel as well as employees, four fire mock drills were conducted in technical area like MPS Hall, Indus-1, Beamline-2, Indus-2, 100 kV DC power supply RF Building, and Guard House, etc.



*Fire mock drill at magnet power supply unit of Indus-1.*



*Fire mock drill at Indus-1.*

In addition to the above, National Fire Service Week-2022 was also observed during the period and various programs were arranged for enhancing safety awareness and skills for the employees & colony residents like display of banners having theme of the year as “Learn Fire Safety, Increase Productivity”, on the spot fire-fighting training with fire extinguishers in front of RF Building, basic fire-fighting demonstrations to school children and colony residents, fire mock drill at MPS, Indus-1, etc.

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### N.8: Clean and green campus activities at RRCAT

Continuous efforts are made throughout the year to develop a clean and green campus in the residential and technical areas of RRCAT, by taking regular cleanliness and plantation drives. In view of the COVID-19 pandemic, the cleanliness activities in the campus have become even more important. As per the directive from Secretary, DAE, all units were to observe “Swachhata Pakhwada” from February 16 to February 28, 2022, and undertake innovative cleanliness related initiatives during the fortnight. In this direction, various activities were carried out at RRCAT, which were coordinated by the Advisory Committee for Clean and Green Campus (ACGC) of RRCAT. The activities included: (a) Two workshops for house-keeping staff and Work Assistants working in various Divisions of RRCAT. During the workshop, the lectures were delivered in Hindi language by the doctors of RRCAT Medical Centre, namely Dr. S. Bhavani and Dr. Manisha Chauhan, respectively, on the topic “Hygiene and cleanliness issues in the current scenario of COVID-19”. The talks were followed by question & answer sessions; (b) Screening of award winning films on swachhata during online celebration of National Science Day (NSD-2022); (c) Quiz for employees of RRCAT on the topic of 'COVID-19 related Swachhata 'as guidelines' well as general Swachhata initiatives taken by the Government of India; (d) Swachhata special drive in RRCAT colony; (e) Swachhata drive in all Divisions and buildings in the Technical Area of RRCAT; (f) Special drive for