



न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड
Nuclear Power Corporation of India Limited

(भारत सरकार का उद्यम A Govt. of India Enterprise)

नरौरा परमाणु विद्युत केंद्र Narora Atomic Power Station

डाक एनएपीएस टाउनशिप, नरौरा जिला बुलंदशहर (उ.प्र.)- 203 389

PO: NAPS Township, Narora, Distt. Bulandshahr (UP)-203 389



No. NAPS/06000/Planning/TIC/2024/S/112

Dated: 19.10.2024

एनएपीएस में 21.09.2024 को हुए बाह्य-स्थल आपात अभ्यास की रिपोर्ट |

Report on Off-site Emergency Exercise conducted on 21.09.2024 at NAPS.

एनएपीएस में 21.09.2024 को हुए बाह्य-स्थल आपातकाल अभ्यास की रिपोर्ट आपकी सूचना एवं रिकार्ड के लिए संलग्न है | Enclosed please find the report on Off-site Emergency Exercise conducted on 21.09.2024 at NAPS for your Information and retention.

हस्ताक्षर 19/10/2024

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- | | |
|--------------------------|--------------|
| - Supdt. QA | - SHP |
| - Medical Superintendent | - Head, F&IS |
| - OIC, ESL | - STE (P) |
| - Astt. Commdt., CISF | - SCE |

न्यूक्लियर पावर कॉर्पोरेशन ऑफ इण्डिया लिमिटेड

NUCLEAR POWER CORPORATION OF INDIA LIMITED

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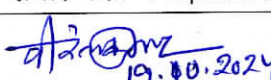
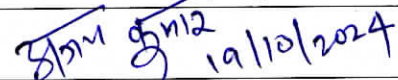
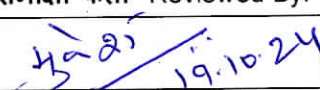
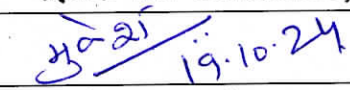
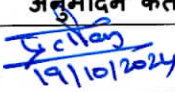
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नरौरा परमाणु विद्युत केंद्र पर बाह्य-स्थलीय आपातकाल अभ्यास की रिपोर्ट

Report on Off-site Emergency Exercise
Conducted at Narora Atomic Power Station

अभ्यास - तिथि Date of Exercise 21/09/2024

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REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

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1.0 INTRODUCTION:

Integrated Command, Control & Response Off-site Emergency Exercise was conducted at Narora Atomic Power Station on 21st September, 2024.

Exercise scenario was prepared by NPCIL-HQ and it was unknown to players. The Controller provided significant / important sequence of events in the form of injects to relevant players at Main Control Room / ESL in real-time. Players (NAPS Officials, District Officials, TSC NPCIL-HQ, CMG-DAE, RERD-DAE, AERB) participated in the exercise in the roles they are expected to play during an emergency response.

The focus of the exercise was on identification & declaration of emergency class, early and intermediate phase decision making, activation of different emergency control centers, initial response, recommendations of protective action and to check response of district officials in the process of implementation, interface and coordination between plant / site & district authorities without involvement of public. The duration of the exercise was around 08 hours in compressed time mode to simulate 52 days' time line in necessary steps & time lapses.

Status of the NAPS Unit-1& 2 on the day of exercise was as follows:

NAPS-1 : Operating normal at 207 MWe.
NAPS-2 : Operating normal at 215 MWe

2.0 OBJECTIVES:

The objectives of the ICCR-Offsite Emergency Exercise were;

- Demonstrate proficiency in Emergency Classification based on Emergency Action Levels.
- Protection strategy by decision makers during different stages of emergency exposure situation including identification of protective areas and protective actions.
- Demonstrate Analytical capabilities for projected dose assessment.
- Demonstrate the ability to identify the area for radiation monitoring based on analysis.
- Observe activation time for ORCA or any other area and District Emergency Operation Centre.
- Demonstration to reach the affected areas for warning and response.
- Demonstrate access control, identification of nearby shelter facilities etc. by District authorities based on information (weather, sector etc.) received from ORCA group.
- Demonstrate environmental monitoring of the affected area based on analysis by Decision Support System (DSS).
- Observe the coordination among District / State agencies for response actions.

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- Analytical capability of NPCIL-HQ, RERD-DAE and AERB with respect to the identified role in support and monitoring of emergency response.

3.0 SCOPE:

3.1 Activities planned during this exercise:

- Identification, declaration & notification of Emergency Class **(NAPS)**
- Decision making process, based on Initiating Condition & Emergency Action Levels (EALs), during early phase of emergency **(NAPS)**
[The early phase response comprises i) “event initiation”, including recognition of an emergency situation and initiation of the response and ii) “Mitigation of Emergency situation/ decision of AMG action”, including characterize and gain control over the source and implementation of any urgent protective measures that must be taken promptly in order to be effective].
- Activation of Plant & Site Emergency control Centre (PECC & SECC) including ORCA Group for Offsite emergency. **(NAPS)**
- Activation of District Emergency Operation Center and involvement of district officials. **(District Administration, Bulandshahr)**
- Prognosis of emergency situation, evaluation of source term, assessment of projected dose, prediction of meteorological parameters (48 hrs.) **(NAPS)**
- Identification of affected Sector of UPZ, and areas & teams for Environmental Radiation Monitoring (for Operational Intervention Level (OIL) identification only). **(NAPS)**
- Movement of officials / responders to the identified village/area **(District Administration, Bulandshahr)**
- Movement of response teams for Emergency Response Functions (ERFs) such as Iodine Thyroid Blocking (ITB), sheltering, evacuation, etc. However, with no public involvement. **(District Administration, Bulandshahr)**
- Decision making process for the intermediate/ingestion phase i.e. after the control over the situation in the plant has been regained, the release has been terminated and no further release is expected **[Radiation Emergency Response Director-DAE (RERD-DAE)]**
- Termination of Offsite emergency **(RERD-DAE/ District Administration, Bulandshahr)**

3.2 Activities not planned during this exercise:

- Field exercises during intermediate/ingestion phase i.e. after the control over the situation in the plant has been regained, the release has been terminated and no further release is expected.

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- b) Emergency Response Functions (ERFs) like search & rescue, personnel & vehicle decontamination, Medical Response, Emergency workers, keeping the public informed, etc. are not planned.
- c) Assessment of dose of emergency workers.
- d) Actual implementation of response actions involving public.
- e) Non radiological consequences & response.

4.0 PREPARATORY WORK:

Extensive preparations were done for smooth conduct of the Integrated Command, Control & Response Off-site Emergency Exercise. Major preparatory actions carried out before exercises are as follows:

06.07.2024	Letter was sent to District Magistrate, Bulandshahr (Incident Commander) to concur date for conducting Integrated Command, Control & Response Off-site Emergency Exercise (ICCR-OSEE) in the third week of September 2024.
19.07.2024	Acceptance of District Magistrate, Bulandshahr was received to conduct exercise on 21 st September-2024.
24.07.2024	Requirement of assistance w.r.t. provide injects with scenario to conduct Integrated Command, Control & Response Off-site Emergency Exercise was communicated to ED-O (PHWR) and ED-HSE at NPCIL HQ.
01.08.2024	OPSD, AERB was communicated to nominate observers for Integrated Command, Control & Response Off-site Emergency Exercise (ICCR-OSEE)
13.08.2024	Request for visit of CMG DAE official to NAPS site for detail discussion about Offsite emergency exercise
29.08.2024	A meeting was conducted at Mumbai with participation from officials of CMG-DAE, AERB, NPCIL, HQ and NAPS for briefing about preparedness of ICCR-OSEE.
02.09.2024	Letter sent to DM, Bulandshahr to concur the date for refresher training / briefing about Offsite emergency exercise.
13.09.2024	Refresher training and Pre exercise briefing meeting was conducted at district Collectorate Bulandshahr wherein briefing of ADM (F/R) and other district officers was carried out by NAPS team comprised of TSS, Senior Technical Engineer (Planning), OIC, ESL and Station Health Physicist. Procedure of conducting the exercise was thoroughly discussed in the meeting. A brief procedure on actions of Incident Commander during Off-site Emergency was also prepared and distributed among district team.
17.09.2024	Pre exercise briefing meeting was conducted with NAPS officials

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	including Shift operation crew, Plant Emergency Organization (PEO) and Site Emergency Management Committee members, Offsite Radiological Condition Assessment (ORCA) group members and other concerned officers, wherein scope, objective and procedure of Integrated Command, Control & Response Off-site Emergency Exercise were briefed.
20.09.2024	A briefing session was carried out for all the Observers & Controller to apprise them of the activities planned to be carried out during ICCR-OSEE.

In addition to above, following preparations were made:

- One senior officer (Shift Charge Engineer) of NAPS was deputed at District Emergency Operation Centre, Bulandshahr as an Observer along with NDMA and AERB Observers.
- Information booklet was prepared on ICCR-OSEE & provided to all Observers of exercise.
- Availability of required documents, procedure, drawing etc. was ensured at simulated MCR, PECC, SECC and ESL as per the approved checklist.
- Transport was arranged for observers to DM, Bulandshahr office (Emergency Operation Centre) & for observers in field to check response of district officials as well as ESL survey team.
- Arrangement was made for still photography at simulated MCR, PECC and SECC during exercise.
- Arrangements of lunch for functionaries and observers at simulated Main Control Room, Site Emergency Control Centre and Plant Emergency Control Centre.
- Arrangements were made for:
 -) Feedback from all observers posted at site, in CS conference room, after termination of exercise.
 -) Feedback from all observers posted at DM, Bulandshahr office (Emergency Operation Centre) including officials from AERB, NDRF, SDMA, NDMA and District officials was obtained at NAPS Guest house meeting room. DM Bulandshahr, SDM Debai and NDRF observers connected through Video conferencing.

5.0 SCENARIO OF INTEGRATED COMMAND, CONTROL & RESPONSE OFF-SITE EMERGENCY EXERCISE (ICCR-OSEE):

CS conference room and Video conference Room in Administration Building were used as simulated PECC and Simulated Control room. WANO meeting room was used as simulated SECC. Simulated operation crew had one SCE, one ASCE, two control Engineers and two first operators.

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Inject-1.1 was served to Control Engineer with incident time line from 05:40 - 06:00 hrs of 21st September 2024 indicating both Unit-1&2 are operating at 100% FP. Unit-1 tripped on Neutron log rate very high >13% per second / Neutron power very high >118%. PSS & SSS tripped. Pump room pressure very high appeared and RB got boxed-up. Crass cool down of PHT system got initiated. ECCS got line up on Type-II injection. EOP for LOCA and IC&EAL document for NAPS-1&2 were referred and actions were initiated as per EOP. Pump room and FM vault accident area radiation monitors were showing radiation field of 270 R/hr. Safe shutdown of unit-1 was ensured. PEMC and key officials of NAPS were informed about Emergency Alert condition in NAPS-1. **Shift charge engineer declared Emergency Alert on LOCA condition (MA2).** Emergency Alert notification was sent as per procedure.

Inject-1.2 was served to control engineer with incident time line up to 07:00 hrs of September 2024 indicating ECCS Pump-1 and Pump-3 lined up but Pump-1 tripped on electrical protection. ECCS Pump-4 was under maintenance due to high vibration problem. ECCS Pump-2 got lined up and now core cooling was being maintained by Pump-2&3. ASCE informed to SME-M/E for checking ECCS Pump-1 and asked CE to monitor healthiness of running ECCS pump parameters.

Control engineer referred IC & EAL document for NAPS-1&2 and identified Plant emergency condition **MP2.2** (LOCA + ECCS imminent failure) as there is no standby Pump available. Members of PEMC reached at Main Control Room and PECC was activated. Station Director assumed charge of **Plant Emergency Director and declared Plant Emergency.** SCE briefed PEMC members about the plant conditions. PED sent notification for declaration of Plant Emergency. SECC was activated. EOP and Emergency Operating procedure and Accident Management Guideline were referred in PECC for handling of Plant Emergency and instructed SCE to shut down and cooldown of the other operating unit.

Inject-1.3 was served to Control Engineer with incident time line up to 08:00 hrs of 21st September 2024 indicating ECCS Pump-3 tripped on electrical fault. Severe current hunting was observed in running ECCS Pump-2 and it also tripped on overload protection causing ECCS failure. Accident Area monitors were showing increasing trend of radiation field. MS (Damage control coordinator) instructed to SME-M/E for checking ECCS Pump-2&3 and try to make the Pump available. SCE referred IC&EAL document for NAPS-1&2 and identified Site emergency condition **MS2.1** (LOCA + ECCS Failure) and he briefed the same to PEMC.

Plant Emergency Director handed over the responsibilities of PED to CS and assumed the charge of SED and moved to SECC. **Site Emergency Director declared Site Emergency** at NAPS Site. SECC was informed. Members of Site Emergency Committee reached SECC and activated their respective emergency response groups. Accident Management Guideline was referred in SECC for handling the Site Emergency. Off Site Emergency Support Centre was activated. Incident Commander was alerted for activation of District EOC. Site emergency notification was sent as per procedure. Evacuation of non-essential site personnel was instructed by SED and implemented.

Inject-1.4 was served to control engineer with incident time line up to 11:00 hrs of 21st September 2024 indicating Calandria got boxed up and not getting reset and moderator flow Through HX-1&2 were zero. Moderator cover gas pressure was increasing due to

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temperature rising. Sudden drop in Moderator cover gas pressure indicating OPRD rupture. Containment pressure was in increasing trend. Calandria level was also showing increasing trend in recorder. Accident area radiation monitor was showing high radiation field. Accident Management Guideline was referred.

Site Emergency Management Committee discussed the situation and instructed to inject water Calandria through hook up point. Water injection in to Calandria through hook up was implemented. Calandria level is increasing and containment pressure is in increasing trend.

Inject-1.5 was served to control engineer with incident time line up to 03:00 hrs of 23rd September 2024 indicating Calandria injection initiated but failed due to gross leak from Calandria hook up line flange. Calandria level is decreasing. Containment pressure is rising. Calandria vault cooling running Pump-1 tripped and Pump-2 is under major maintenance. Calandria vault expansion tank level low alarm appeared. Water injection to Calandria vault initiated through hook up point. Containment pressure is rising and reached at 1.0 kg/cm². Sudden drop in containment pressure at 01:00 hrs, 23rd September 2024 was observed. Emergency Air Lock seal failure was noticed in field. Environmental radiation monitors are showing high radiation levels.

SCE referred the IC&EAL document for NAPS-1&2 identified that MO 2.4 is met and he informed SEMC about prevailing condition of inject. Site emergency management committee (SEMC) discussed the situation of NAPS-1, referred ICs & EALs document for NAPS-1&2 and SEMC advised SED for declaration of Off-site Emergency based on the condition MO 2.4.

Site Emergency Director declared Off-site emergency at NAPS site and advised to Incident Commander (DM, Bulandshahr) to notify the Off-site Emergency and alert people to stay at home and avoid consumption of open food and water in affected sector-H (Maharaj Pur, Ganga Garh) based on prevailing weather condition by DSS projection. ITB implementation to site personnel was also instructed and implemented.

CMG-DAE, Alt. CMG-DAE, NREMC-AERB, RERD, Technical Support Centre NPCIL-HQ and Director (operations), NPCIL were informed about Off-site Emergency declaration at NAPS site.

Off-site Radiological Condition Assessment group activated. TSS as a member of ORCA group handed over charge to his alternate and left to SECC. TS handed over charge of member secretary SEMC to his alternate and acted as member secretary ORCA group.

Inject-1.6 was served to control engineer with incident time line up to 14:00 hrs of 23rd September 2024 indicating cooling through Calandria vault hook up continues, containment pressure is decreasing with rapid rate and media persons assembled at Township gate for information about the events and rumors about public concerns.

Based on the source term, DSS was run at SECC. Protective action recommendation was prepared by ORCA group. Based on technical assessment of emergency situation as per information on plant parameters, meteorological conditions and estimation of dose rates after running DSS, maximum projected dose in Maharaj Pur was 1580 mSv. **PAR-1** was issued by Site Emergency Director to Incident Commander for implementation of sheltering within 1-2 hours and Iodine thyroid blocking in 1-2 hours in affected sector H (Maharaj Pur, Ganga

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Garh). ESL survey team left for field survey as per information received at SECC.

After receipt of PAR, Incident Commander Team implemented the PAR-1 in affected sector.

Revised PAR for 48 hrs projection, PAR-2 was prepared by ORCA group. Based on technical assessment of emergency situation as per information on plant parameters, meteorological conditions and estimation of dose rates for 48 hrs projection, maximum projected dose in Maharaj Pur was 2000 mSv and affected sectors will be H, G & F. **PAR-2** was issued by Site Emergency Director to Incident Commander for implementation of ITB within 1-8 hours (Maharaj Pur, Gangabas bangar, Bijaon, Hakimpur Khadar, Gangagarh, Nandpur, Niwari, Ramghat Khadar) sheltering within 2 hours in Maharajpur and prevent consumption of open food, water etc. in all above villages.

After receipt of PAR-2, Incident Commander team implemented it in the affected sector.

Inject-1.7A was served to OIC-ESL with time line up to 10:00 hrs, 25th September 2024 indicating projected thyroid dose to public in Nandpur village indicate the requirement of administration of ITB tablets.

Based on field measurement and assessment by radiological survey in affected areas, **PAR-3** was prepared by ORCA Group and issued by Site Emergency Director to Incident Commander for implementation of access control, Sheltering, iodine thyroid blocking distribution and prevent consumption of open food and water in sector 'O' (Nandpur village) as early as possible i.e. within 1 hour.

After receipt of PAR-3, Incident Commander Team implemented it in the affected sector.

Based on field measurement and assessment by radiological survey in affected areas, **PAR-4** was prepared by ORCA Group and issued by Site Emergency Director to Incident Commander for implementation of access control in affected areas, Sheltering, iodine thyroid blocking distribution and prevent consumption of open food and water in Retuka Nagla, Maharajpur, Gokulpur, Rambas and Gangagarh villages as early as possible i.e. within 1 hour.

After receipt of PAR-4, Incident Commander Team implemented it in the affected sector.

Inject 1.8 was served to control engineer with time line up to 12:00 hrs of 25th September 2024 indicating core cooling through Calandria Vault continued with hook up line injection, leaky path of containment identified and isolated (13:00 hrs, 25th September 2024), uncontrolled release of radioactivity stopped, no possibility of re-criticality and District authority is asking for the information on plant status for preparation of media briefing.

Inject-1.9 was served to control engineer with time line up to 12:00 hrs of 26th September 2024 indicating Calandria vault injection continue, containment pressure being monitored, radiation field around reactor building in decreasing trend (150 micro Sv/hr, radiological releases and containment conditions are being maintained, above conditions can be maintained for long term including critical parameters and release from the plant is now insignificant.

SCE briefed to PEMC and Head PEMC briefed to Site Emergency Director at SECC. Site Emergency Director requested to Chairman CMG-DAE for changeover of off-site emergency from early phase to intermediate phase as plant condition at NAPS-1 was

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stable, release from the plant is insignificant and no further release was expected. CMG-DAE provided his acceptance for changeover to Intermediate phase. SED send intimation to RERD-DAE for changeover of emergency to intermediate phase and taking over charge of giving technical guidance to Incident Commander. RERD acknowledged and send his intimation to Incident Commander to provide further technical guidance for handling radiological emergency.

Inject 2.1 served to Emergency response team at ESL in timeline up to 12:00 hrs of 27th September 2024 indicating gamma radiation field at 1 m distance above the ground in the range of 172-182 micro Sv/hr in affected sector-H area and in the range of 48-62 micro Sv/hr in adjacent sectors.

Inject information was communicated to RERD by ESL team.

RERD issued protective action recommendation (**PAR-1**) and recommended to Incident Commander for temporary relocation of residents of Maharajpur and Retuka Nagla (sector-H) to designated location beyond 15 km to be carried out, restriction on food, milk and drinking water consumption to be continued and alternate arrangement for food, milk and drinking water must be arranged, water consumption from Ganga river and canal to be restricted up to 5 km and health screening in radiological aspects of affected people in these villages and medical follow up to be carried out.

In adjacent sectors (villages Gokalpur Bangar, Rambas and Gangagarh) restriction on food, milk and drinking water to be continued and alternate arrangement for food, milk and drinking water must be arranged, the earlier protective actions of sheltering may be continued and restriction on water consumption from Ganga river and canal to be restricted up to 5 km.

Incident Commander forwarded the PAR to SDM Debai for necessary action to implement the PAR. The local administration and environmental survey team of ESL responded with physical movement of various response teams to the affected areas. Response time of administration and medical team to reach the affected areas for early warning, access control, Iodine Thyroid Blocking and control on food stuff were assessed. Temporary shelters for affected villages were identified.

Inject 2.2 was served at ESL (scenario time 08:00 hrs, 29.09.2024) indicating activity concentration of I-131 and Cs-137 in crops, vegetables, milk and drinking water samples in Village – Maharajpur and Retuka Nagla (Affected sector-H) in the range of 550-1325 Bq/kg and 170 – 500 Bq/kg respectively, in adjacent sectors villages – Gokalpur Bangar and Gokalpur Khadar in the range of 300-650 Bq/kg and 80-180 Bq/kg respectively.

RERD issued protective action recommendation (**PAR-2**) and recommended Incident Commander for temporary relocation of residents of Maharajpur and Retuka Nagla (sector-H) to be continued; at designated location beyond 15 km, relocated population may continue to remain at designated location till further notification, Milk consumption to be stopped with alternate arrangements in place, any milk produced in these affected villages to be stopped from supply, restriction on food and drinking water consumption to be continued and alternate arrangement for food and drinking water must be arranged, restriction on consumption from Ganga river and canal up to 5 km, to be continued and health screening

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in radiological aspects of affected people in these villages and medical follow up to be continued.

In adjacent sectors (villages Gokalpur Bangar, Rambas and Gangagarh, restriction on food, milk and drinking water to be continued and alternate arrangement for food, milk and drinking water must be arranged, outdoor activities to be minimized, and restriction on consumption of water from Ganga river and canal up to 5 km, to be continued.

Recommended actions were implemented by Incident Commander.

Inject 2.3 was served at ESL (scenario time 14:20 hrs, 11th October-2024) indicating gamma radiation field at 1 m distance above the ground in the range of 58-92 micro Sv/hr in sector-I area (Chirauli Taluka). Inject information was communicated to RERD by ESL team.

RERD issued protective action recommendation (**PAR-3**) and recommended to Incident Commander for temporary relocation of resident of Chirauli Taluka to designated location beyond 15 km, restriction on food, milk and drinking water to be continued and alternate arrangement for food, milk and drinking water must be arranged and water consumption from Ganga river and canal to be restricted up to 5 km, to be continued.

Recommended actions were implemented by Incident Commander.

Inject 2.4 was served to Emergency response team at ESL in timeline up to 14:40 hrs of 12th October 2024 indicating gamma radiation field at 1 m distance above the ground in the range of 22-36 micro Sv/hr in sector-H area (Maharajpur, Retuka Nagla) and in the range of 10-22 micro Sv/hr in adjacent sectors (Gokalpur Bangar, Gokalpur Khadar, Gangagarh, Rambas). Inject information was communicated to RERD by ESL team.

RERD issued protective action recommendation (**PAR-4**) and recommended to Incident Commander for temporary relocation of residents from sector-H villages (Maharajpur and Retuka Nagla) to designated locations beyond 15 km to be continued, restriction on food and drinking water to be continued and alternate arrangement for food and drinking water must be arranged, water consumption from Ganga river and canal to be restricted up to 5 km. In adjacent sectors (Gokalpur Bangar, Rambas and Gangagarh) restriction on food and drinking water to be continued and alternate arrangement for food and drinking water must be arranged, outdoor activities to be minimized and water consumption from Ganga river and canal to be restricted up to 5 km.

Recommended actions were implemented by Incident Commander.

Inject 2.5 was served at ESL (at 08:00 hrs, 14th October-2024) indicating milk collection and distribution centers and weekly vegetable market are found functioning in the affected sector. 10 numbers of responders are found contaminated, decontamination of responders and management of corresponding rad waste to be done.

Information was communicated to RERD.

RERD issued protective action recommendation (**PAR-5**) and recommended to Incident Commander to stop the functioning of milk collection, distribution centers and vegetable markets immediately. To provide assistance to ESL teams for sampling of products from above centers and market and to identify the persons who have consumed the contaminated product, to provide logistics for decontamination of responders and logistic

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support for managing the radioactive waste.

Recommended actions were implemented by Incident Commander.

Inject 2.6 was served at ESL (10:00 hrs, date 1st November 2024) indicating activity concentration of I-131 and Cs-137 in crops, vegetables, milk and drinking water samples in Village – Maharajpur, Retuka Nagla (Affected sector-H) and in villages – Gokulpur Bangar and Gokulpur Khardeo in Adjacent Sector in decreasing trend. Information was communicated to RERD.

RERD issued protective action recommendation (**PAR-6**) and recommended to Incident Commander for initiating decontamination activities, allowed relocated people to return to their villages but outdoor activities may be restricted until decontamination activities are completed in affected sector-H. Restriction on food, water (from well) and milk to be continued and alternate arrangement of food, water and milk must be arranged and restriction on water consumption from Ganga and canal can be lifted in sector-H and adjacent sectors.

Recommended actions were implemented by Incident Commander.

Inject 2.7 was served at ESL (09:00 hrs. of 19th November 2024) estimating that the residual dose to the public in the affected area likely to be 12 mSv/yr after implementation of various protective measures towards protection of public. Information was communicated to RERD.

Inject 2.8 was served at ESL (10:00 hrs. 25th November 2024) indicating residual dose to public approaching lower bound of reference level for emergency exposure situation and transition to existing exposure situation with delineation of areas where social and economic activity is not feasible has taken place.

Information was communicated to RERD.

RERD advised to Incident Commander for termination of Off-site emergency. Incident Commander sent notification for termination of Off-site Emergency. After receipt of termination notification from Incident Commander, SED declared termination of Off-site Emergency at NAPS Site.

SED has discussed the prevailing plant and site condition and observed that long term cooling of core has been established through Calandria vault cooling pump and the situation warranting for site emergency has been normalized. Based on this SED terminated Site emergency and after this Plant emergency condition was also terminated. Message for termination of Site emergency and Plant emergency were communicated to CMG-DAE, NPCIL HQ TSC, DAE ECR and Alt DAE CER.

The exercise was concluded to be successful. ICs & EALs document for NAPS-1&2 and NAPS specific accident management guideline were referred, communication was done within the stipulated time frame and appropriate response actions were taken by concerned responsible agency. The prompt actions of different emergency response groups and coordination with state agencies were satisfactory and their response time was as envisaged.

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Brief timeline of the exercise:

Event	Time	Remarks
Emergency Alert declaration at NAPS	09:05	Loss of coolant accident (MA2).
Activation of Plant Emergency Control Centre	09:18	-
Plant Emergency declared at NAPS	09:25	Loss of Coolant Accident with ECCS imminent failure (MP2.2)
Activation of Site Emergency Control Centre	09:40	-
Site Emergency declaration at NAPS Site	09:45	LOCA + ECCS failure (MS2.1)
Activation of Off-site Emergency Support Centre	09:56	-
Activation of District Emergency Operation Centre (EOC) at Bulandshahr	10:32	-
Off-site Emergency Declaration at NAPS notification	10:35	Based on Identified initiating condition MO LOCA + ECCS Failure + Moderator Cooling Failure + Calandria Injection Failure + Containment Functional Failure (MO 2.4)
Off-site Emergency notification by Incident Commander	11:10	-
Protective Action Recommendation-1 approved by SED for implementation to Incident Commander.	11:17	Protective action recommended to Incident Commander for implementation in affected sectors based on projected dose.
Protective Action Recommendation-2 approved by SED for implementation to Incident Commander.	11:59	Protective action recommended to Incident Commander for implementation in affected sectors based on projected dose.
Protective Action Recommendation-3 approved by SED for implementation to Incident Commander.	12:13	Protective action recommended to Incident Commander for implementation in affected sectors based on measured radiological conditions.
Protective Action Recommendation-4 approved by SED for implementation to Incident Commander.	12:48	Protective action recommended to Incident Commander for implementation in affected sectors based on measured radiological conditions.
Request by SED for changeover of Emergency to Intermediate phase to CMG-DAE	13:00	Based on achieving the severe accident safe state and release from the plant is insignificant with no further release expected.
Acceptance of CMG for changeover to intermediate phase	13:05	-

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Event	Time	Remarks
SED intimated to RERD about changeover to intermediate phase.	13:27	-
Acknowledgement of RERD for taking over charge to provide technical guidance to Incident Commander	13:42	-
1 st Protective action recommendation from RERD	14:06	Based on inject of radiological condition (gamma radiation field at 1 m above ground) in Sector-H.
2 nd protective action recommendation from RERD	14:47	Based on inject of activity of I-131 and Cs-137 in food, milk, drinking water samples.
3 rd protective action recommendation from RERD	15:05	Based on inject of radiological condition (gamma radiation field at 1 m above ground) in Sector-I.
4 th protective action recommendation from RERD	15:18	Based on inject of decreasing radiological condition (gamma radiation field at 1 m above ground) in Sector-H.
5 th protective action recommendation from RERD	15:40	Based on inject of milk distribution Centre and vegetable market functioning in affected sector.
6 th protective action recommendation from RERD	16:05	Based on inject of activity of I-131 and Cs-137 in food, milk, drinking water samples decreasing in affected sector-H and adjacent sectors..
Recommendation of RERD to Incident Commander about termination of Off-site Emergency	16:18	-
Offsite emergency termination message received from RED	16:24	-
Notification of Termination of Off-site Emergency by Incident Commander	16:36	-
Termination of Off-site emergency by SED at NAPS Site	16:46	-
Termination of Site emergency	17:00	-
Termination of Plant emergency	17:10	-
Termination of Emergency Alert	17:15	-

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6.0 OBSERVATION AND FEEDBACK:

Integrated Command Control & Response (ICCR) off-site emergency exercise of NAPS-1&2 was conducted on September 21, 2024. An introductory pre briefing meeting was held on September 20, 2024 at NAPS Guest house glass room, wherein exercise procedures, the locations of various emergency centers, exercise objective and participant roles were discussed. AERB also presented a set of common observation that is being noted by AERB based on its oversight of OSEE at all NPPs.

ICCR OSE exercise was started at 9.00 AM on 21.09.2024 & got completed at 16.45 PM as per the progression of unfolding events. Discussion & use of EOP, AMG Guidelines, IC/EAL Document was done.

During the exercise, Observers were present at simulated Main Control Room (MCR), PECC, SECC, ESL, District EOC (DM meeting room, Bulandshahr) along with local state officials to observe the response & activities.

After the exercise, an evaluation & feedback meeting was held at 17:30 hrs on the same date i.e. 21/09/2024 in CS conference room, Admin building. The meeting was chaired by Station Director, NAPS. Members of Site Emergency Management Committee, Observers & other participating official from concerned groups attended the meeting. Another feedback meeting was conducted in NAPS Guest house glass room at 19:00 Hr to get feedback from all observers posted at DM, Bulandshahr office (Emergency Operation Centre), observers in field with ESL team and observers in field for assessment of time taken by district officials responders to reach location and implement recommended actions, in which DM Bulandshahr, SDM Debai and NDRF official connected through Video conferencing after termination of exercise.

The meeting focused on strength & weakness of various participating organization & the observations for improvement.

A. Following are the major highlights of exercise:

- ❖ Exercise went smooth. Exercise was effective and Exercise objectives were met.
- ❖ Use of Email Communication for messages as per standard templates with all stake holders was done & it was smooth.
- ❖ Control Room Staff identified the scenario, performed the mock actions as per relevant EOPs.
- ❖ Emergency Response actions like mock announcement, notification, shutdown of other unit were carried out.
- ❖ PEMC assembled within stipulated time, discussed the progress of the event and followed up the EOP.
- ❖ AMG actions were deliberated by PEMC.

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- ❖ Telephonic information were received by OIC-ESL regarding declaration of various Emergency Class as per the EPR plans.
- ❖ On declaration of Plant Emergency OIC-ESL deputed officials to collect air samples and measure radiation levels within the plant Boundary.
- ❖ On escalation to Site emergency, OIC-ESL deputed officials for radiation survey outside Site Boundary.
- ❖ Log of events were maintained by OIC-ESL.
- ❖ Required reference documents were available in the PECC and SECC for reference by the members.
- ❖ Map of surrounding villages was available in SECC and OIC-ESL office.
- ❖ Communication to field teams was done through Wireless set in addition to Mobile communication.
- ❖ On escalation of Site to Off-Site emergency, the field survey teams were instructed to move to the identified affected villages for measurement of radiation field and collection of air & soil samples.
- ❖ On receiving inject regarding the radiation field in the affected village in the early phase, OIC-ESL communicated with ORCA group regarding the Protective actions to be recommended based on the radiation field.
- ❖ At ESL, adequate discussion and consultation between head ESL and RERD was observed for issuing the protective actions.
- ❖ DSS system which directly indicated the villages where protective actions are to be taken, worked smoothly as per requirement

Conclusion: ICCR offsite exercise was successfully conducted at NAPS site on 21st September 2024 for testing all its intended objectives.

B. Following are the areas for Improvements:

- ❖ Emergency Planning Zone Map displayed in PECC and SECC were not having Sector Identification- This was making identification of affected villages difficult.
Response: Sectors have been marked in map.
- ❖ EPZ map was not having PAZ/UPZ/EPZ/ICPD identification.
Response: PAZ / UPZ / EPZ / ICPD have been marked in map.
- ❖ In one notification, MS-1.1 was mentioned instead of MS-2.2

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Response: It was a typographical error. It will be taken care to avoid such mistakes in future.

- ❖ HQ help was being rendered for DSS operation way too much.

Response: Site HPU officer was able to operate the DSS, As some modification in DSS was also carried out by HQ official few days back; therefore HQ personnel were helping in DSS operation.

- ❖ The use of required forms for fax message / email to be strengthened as it was evident from time delay and missing of one part of message from SECC during the exercise.

Response: All emails and fax messages were sent successfully. During declaration of plant emergency, BSNL connectivity was lost for some time and hence email and fax was sent through alternate means through internet/VSAT. This caused some delay in sending plant emergency declaration message. However, the bunching of required forms for fax message / email will be further strengthened in future exercises.

- ❖ Emergency log book may be maintained in a profession manner at PECC /SECC.

Response: Emergency log book was maintained PECC & SECC, however further improvement will done in future.

- ❖ Always PECC should be manned by Member secretary or his alternate.

Response: Noted for compliance.

- ❖ Off-site emergency was identified based on IC-EAL condition MO-2.5 (LOCA + ECCS Failure + Moderator Cooling Failure + Calandria Injection Fail + Containment Pressure approaching design pressure) instead on MO-2.4. Correct identification of IC-EAL conditions leads to correct identification of source term for consequence analysis.

Response: Off-site emergency was identified based on IC-EAL condition MO-2.5 in place of MO-2.4 by mistake. However, the source term and response action in selected sectors did not get affected and were similar in both cases. However, this is noted for compliance in future.

- ❖ Inject no. 1.1 indicated that the threshold for declaration of plant emergency class (LOCA + fuel failure as seen from radiation monitors) has been crossed. However, emergency class was declared as Alert. Response actions following emergency depends on correct identification of emergency class.

Response: Emergency alert was declared based on LOCA condition and fuel failure aspect could not be taken care of by mistake. This is noted for compliance in future.

- ❖ The interaction between OIC-ESL and ORCA members can be improved and OIC-ESL also to be consulted regarding the Protective actions that are planned to be recommended as per DSS.

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Response: OIC ESL was in telephonic communication as part of ORCA group; however interaction will be further strengthened.

- ❖ The Site emergency declaration was done as per the IC condition of MS 1.1, whereas the scenario was from an event due to large Break LOCA condition.

Response: It was a typographical error in communication message but all the actions were taken as per given inject and correct identification of MS condition.

- ❖ The plant condition of the affected units was to be indicated in brief in the communication messages under the “Brief of Plant condition”. But it was only indicated as Shutdown.

Response: This aspect will be further strengthened.

- ❖ The inject 1.5 based on which the off-site emergency was to be declared was given at 10:20 hrs, Notification of off-site emergency to district was to be communicated by 10:50 hrs but the communication was made at 11:05 hrs. Time line identified for response action as per the EPR plan was not met.

Response: After getting inject 1.5, SEMC discussed the inject condition and referred IC-EAL to ensure that MO condition of Offsite emergency declaration has been met. Offsite emergency was declared at 10:35 hr and after this DSS was operated and affected sector and village was identified based on prevailing weather condition and after this notification for Offsite emergency declaration was sent to RO/IC at 11:05 Hr. However care will be taken to respect the time line of the response action.

- ❖ The First PAR was supposed to be given by 11:05 hrs, but PAR-1 was submitted to RO/IC at 11: 43 hrs. Time line identified for response action as per the EPR plan was not met.

Response: This is noted for compliance in future. Care will be taken to respect the time line of the response action.

- ❖ PAR-1 message had indicated that the Protective Actions to be implemented in the affected villages is indicated in Annexure-1 (obtained from the DSS) which indicated the villages where the action has to be taken. However there was no Annexure-1 given in the mail.

Response: Annexure-1 was mistakenly left behind and PAR-1 was communicated without annexure-1. Annexure-1 page was separated from main message for scanning and saved as separate file and it was sent in separate e-mail. However this is noted for compliance in future.

- ❖ The PAR-2 issued has Annexure indicating “This Annexure is a format of PAR which will be obtained from DSS. This format is kept here for representation only”. This message given on top could have been removed before issue of PAR to avoid confusion by the District Authorities.

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Response: The indicated text has been removed from PAR template to avoid mistakes in future.

- ❖ The PAR-4 which was issued based on Inject 1.7 should also have included the Protective action requirement of Relocation (Within weeks and at least within first month) as per the OIL-2 requirement.

Response: This PAR was given by RERD in intermediate phase, this will be communicated to RERD for compliance in future.

Main Control Room(MCR) and Plant Emergency Control Centre(PECC):

- ❖ Plant alert and Plant emergency declaration by crew member and plant emergency director respectively were wrongly predicted. Condition given in inject 1 on wide range accident area monitor (pump room and FM vault showing radiation field of 270R/hr was not considered which was calling to declare plant emergency instead of plant alert. However, timely declaration was simulated.

Response: Emergency alert was declared on LOCA condition. However, fuel failure could not be taken care of by control room staff by mistake. This is noted for compliance in future.

- ❖ Considering a single station of twin order for unit ITB distribution (mock) should have been given.

Response: ITB distribution was given to essential staff after declaration of Offsite emergency; however this aspect will be noted for compliance in future.

- ❖ While carrying out communication with other personnel (HPU, Plant Emergency Director, etc.) from MCR, exercise word was missing from MCR and PECC.

Response: This is noted for compliance in future.

- ❖ Email and Fax facility for communicating emergency class declaration was in simulated SECC, which was far away from PECC.

Response: Email and Fax facility were kept near SECC because majority of the communications are required to be carried out from SECC during exercise.

- ❖ Although the ICCR was carried out in compressed time line, no shift changeover was simulated.

Response: This is noted for compliance in future.

- ❖ Actual event declaration time on plant alert and plant emergency was wrongly mentioned for compressed time line.

Response: This is noted for compliance in future.

- ❖ Satellite phone was not having signal in the Simulated MCR, PECC & SECC

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Response: Satellite phone kept in MCR just for simulation (MOCK) only. Satellite phone was working normal.

Site Emergency Control Centre (SECC):

- ❖ Emergency class declared for site emergency was wrongly identified and actual event declaration time for site emergency was also wrongly mentioned.

Response: This was a typographical error. However, this is noted for compliance in future.

- ❖ Decision on distribution (mock) of ITB in SECC and PECC was taken very late for which it may not be effective.

Response: This aspect will be further strengthened.

- ❖ Participation of CISF Assistant commandant in discussion in SECC was not observed even for an inject on media personnel gathered in township.

Response: CISF Assistant commandant was briefed and this aspect will be further strengthened.

- ❖ Decision for media briefing was taken correctly but it was not simulated that higher management personnel will go to township. The copy of media briefing was not marked to AERB, CMG and District authority and it can create inconsistency in communication for public.

Response: In future, it will be simulated that higher management personnel will go to township. The copy of media briefing will also be marked to AERB, CMG and District authority.

- ❖ Off-site emergency class condition (instead of MO 2.4 it was declared MO 2.5) was also declared wrongly. However, advice of site emergency director on protective action recommendation which was a most important objective of this exercise was effective and efficient.

Response: EAL for declaring Off-site emergency was by mistake wrongly identified as MO 2.5 instead of MO 2.4. This is noted for compliance in future.

- ❖ It was noted that pre-determined source term is provided by NPCIL HQ. Source term should be selected from the matrix by plant personnel who are running DSS. It is also noted that DSS can run for weather prediction in either ESL MODE or IMD mode. However, NPCIL (HQ) informed that considering actual ESL data in IMD predicted weather condition is in progress and will be ready by two months. A mistake of tissue weighting factor for thyroid was also observed for which NPCIL HQ also agreed that it will be corrected within 2 months.

Response: This is noted for compliance in future.

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- ❖ PAR implementation by district personnel was also witnessed by observers from SECC and timely implementation of ITB sheltering, food control and access control is highly appreciated. It was noted that Access control and ITB was implemented within 20 minutes after sending the PAR to district authority.

Response: Nil

- ❖ It was noted that request for changeover of early phase to intermediate phase by SED to CMG was one step early and without confirmation of reducing trend for radiation field measurement. Actually, after confirming insignificant release to environment and reducing trend in radiation field monitoring reading changeover should be requested and granted.

Response: This is noted for compliance in future.

- ❖ It was noted that OIL-2 was correctly identified by RERD but time line for relocation for its implementation was missing. As per condition mentioned in the injects, relocation can be done even in a month.

Response: Observation will be shared with RERD.

- ❖ RERD recommended extension of sheltering for much more than 48 hrs. Generally sheltering is not recommended for more than 48 hrs due to difficulty in maintaining hygienic condition in shelter.

Response: observation will be shared with RERD for justification.

- ❖ Observation of NDMA member, NDMA joint secretary, DIG NDRF and NDRF commandant from site emergency control Centre is very much appreciated.

Response: Nil

Environmental Survey Laboratory:

All activity from ESL was done satisfactorily. Few clarifications from public was asked to the monitoring team and replied satisfactorily. All communications from ESL to simulated MCR, PECC and SECC were made successfully. However, OIC ESL could not participate physically in SECC.

Response: OIC ESL did not participate physically in SECC which as per EPR Plan of NAPS.

District Emergency Operation Centre (DEOC), Bulandshahr:

- ❖ SED declared site emergency and DEOC received the message at 10:07 Hrs of the same for the purpose of alerting the DEOC. However, ADM(IC) Bulandshahr declared off-site emergency and sent message to various departments to be prepared for expected response. Though the off-site emergency message was received later about at 11:02hrs.

Response: Observation will be shared with district authorities / ADM(IC) to clarify the intent.

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- ❖ For implementing PAR, Maharajpur, Retuka Nagla Sector (H) and Gokal Bangar and Khadar Sector (I) under Dibai Tehsil was advised by SED as affected areas. The nearest Public Health Center (PHC) Bijoli was informed by DEOC to reach team to the affected site with ITB. For this, Ziroli PHC should have been selected as it was nearest.
Response: Observation has been shared with district authorities to clarify the intent.
- ❖ Actually decontamination of 10 people was needed and the Chief Fire Service Officer briefed the DEOC about their action at the affected site during temporary relocation as recommended by the RERD, stating that they carried out decontamination of people before relocation, however they were not trained for it and decontamination kits were not available with them. Later, NDRF informed that they have carried out decontamination of contaminated people and they are equipped with decontamination kits and have been trained for the same. However testing response time to reach the affected site by NDRF was also expected which could not be tested.
Response: Observations have been shared with district authorities for information.
- ❖ NDRF raised an issue that there is no provision with them for arranging clothes, to be provided to the people who have undergone decontamination process. However, NDMA joint secretary suggested that DM act can be invoked and arrangement of cloths can be done from nearby market.
Response: Observation has been shared with district authorities so that the provision for above requirement may be made.
- ❖ The Water Corporation representative informed the DEOC that till date, there is no provision for water distribution to the village in response to the RERD recommendation to provide water to the affected (contaminated) site from outside the area.
Response: Observation has been shared with district authorities so that the provision for above requirement may be made.
- ❖ It was noted that till date, no provision has been made for relocation of animals, whereas in such situation the public is relocated temporarily.
Response: Observation has been shared with district authorities so that the provision for above requirement may be made.
- ❖ Although the teams were reporting to affected villages (response time was about 30-40minutes of each team) and response time objective was met. However, they have no idea that from where personal dosimeter, PPE to be taken for their protection.
Response: Observation has been shared with district authorities; however Personal Dosimeter and PPE can be arranged from NAPS site during actual emergency.
- ❖ It was felt that the DEOC and various responders had not been given adequate training and were not well versed with the terminology used during communications.
Response: Refresher training was conducted of district authorities and officials prior to conduct of ICCR Offsite emergency exercise. One has to become very verse in use of

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Emergency related terminology will take some time, However, in future it will be strengthened further.

- ❖ It was also discussed during feedback meeting that there is no existing mechanism to inform SED, RERD and CMG and AERB on the implementation of protective action by district authority. This is important, as if certain PAR not implemented by district authority in well within stipulated time due to some reason then certain readjustment is needed in PAR by SED or RERD. Therefore it was suggested that DEOC will include these organization in its communication list (email) on successful implementation.

Response: At present feedback is not taken from District authority after implementation of PAR recommendation; however provision exists for revision in PAR, in case of any difficulty in PAR implementation by District authority. However, observation has been shared with district authorities to inform about the intent.

- ❖ Responsibility of carrying out ICCR is with NPP site and district authority. Therefore district authority should also prepare a report on ICCR and share it all involved organizations.

Response: Observation has been shared with district authorities to inform about the intent.

- ❖ NDMA felt that PAR should be made by NPP site and RERD in Hindi also for its better understanding for implementation.

Response: This is noted for compliance in future.

- ❖ NDMA stressed that helipad needs to be maintained and use of drone should also considered for implementation of PAR.

Response: This aspect will be shared with District Authority for compliance in future.

- ❖ Role of SDRF should also be included in response.

Response: This is noted for compliance in future and SDRF will be informed for participation in the exercise.

- ❖ Disposal of contaminated food crop, milk and vegetable etc. should be considered by District authority with technical support from NAPS site and CMG-DAE/RERD.

Response: Observation has been shared with district authorities for information about intent.

7.0 CONCLUSION:

Integrated Command, Control & Response Off-site Emergency exercise was conducted successfully at Narora Atomic Power Station on 21st September, 2024. Relevant communications were made and appropriate response actions were demonstrated. Emergency response actions taken by District Administration and NAPS were prompt and appropriate to demand of handling the radiological emergency. Objectives of the exercise were met very well.

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8.0 ANNEXURES:

Annexure-1

**CHRONOLOGY OF INTEGRATED COMMAND, CONTROL AND RESPONSE
EMERGENCY EXERCISE WITH INJECTS**

A. Main Control Room (MCR)	
9:00	Inject-1.1 received.
9:01	Reactor tripped on 'Neutron log rate very high' / Neutron power very high,
9:05	Emergency Alert declared.
9:20	Inject-1.2 received. <ul style="list-style-type: none"> Ⓡ ECCS Pump -1&3 lined up, ECCS Pump-1 tripped on electrical protection Ⓡ ECCS Pump-4 is under maintenance due to high vibration problem, ECCS Pump-2 lined up. Core cooling taking place by Pump-2&3
09:25	Plant emergency declared and announcement done.
09:35	Survival ventilation system taken in to service
09:40	Inject-1.3 received. <ul style="list-style-type: none"> Ⓡ ECCS Pump-3 tripped on electrical protection, Pump-2 tripped on over load Ⓡ ECCS recirculation low appeared, Accident area radiation monitors showing increasing radiation field i.e. >2.1 Sv/hr
09:45	Site emergency declared and announcement done.
10.05	Inject-1.4 received. <ul style="list-style-type: none"> Ⓡ Calandria gets box-up and not getting reset, Moderator flow through HXs reduced to zero, Moderator cover gas pressure observed increasing and Calandria level in increasing. Ⓡ Sudden reduction in Moderator cover gas pressure, Calandria level observed decreasing, Accident area radiation monitors showing high radiation field i.e. >10 Sv/hr, Containment pressure in increasing trend (0.3 kg/cm²)
10:20	Inject-1.5 received.
10:25	SCRPS is operating normal.
10:30	PCCD Fan stated and running normal.
10:35	PCFPBS Fans started and operating normal.
10:35	Off-site emergency declared
11:40	Inject-1.6 received.
11:45	Environmental Radiation Monitor showing 70 micro Sv/hr
11:45	Containment pressure is decreasing with fast rate and pressure is 0.6 kg/cm ²
12:35	Inject-1.8 received.
12:40	RB Containment pressure is 0.3 kg/cm ²

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12:50	Inject-1.9 received.
15:30	Calandria Vault Pump-1 started after rectification of reason of calandria vault pump tripping.
15:35	F/M Vault and Pump room coolers started
16:46	"Off-site emergency terminated" , message received from PECC
17:00	"Site emergency terminated", message received from PECC
17:10	"Plant emergency terminated", message received from PECC
17:15	"Emergency Alert" terminated.
B. Plant Emergency Control Centre (PECC)	
9:08	SD, OS,TSS reached in PECC
9:10	MS, QAS reached IN PECC
9:11	HEAD SAFETY reached IN PECC
9:12	TS reached
9:15	PEMC discussed the prevailing situation.
9:20	P-1, 3 were running, ECC P-1 tripped P-4 U/P, P-2 started. No S/by ECC Pump Available (MP-2.2 condition)
9:25	Plant Emergency declared by PED.
09:30	Damage control coordinator asked SME-M/E to check the reason of ECCS pump tripping and its early rectification.
9.35	Head ESL informed.
9:40	Inject: All running ECC pump tripped, Radiation Field-2 Sv/hr.
9:43	PED referred EOP and AMG document for entry condition to AMG domain.
9:45	Head count completed. No person was missing.
9.45	Site Emergency declared
10:00	PED asked control room staff for injection monitoring of core condition.
10:20hr	Inject – for C/V Pump tripping, cal hook up link leak. Cal box up occurred
10:25	Non Essential Staff evacuation Completed
10:20	ITB distribution consumption completed
10:20	Plant outside survey started
10:35	Off-Site emergency declared
10:40	DCC asked SME-M/E/I to investigate the reason of calandria vault and moderator pump tripping.
11:00	SME-E informed about ECCS pump motor IR is zero and it needs motor replacement.
12:00	PED asked for sampling of containment for sampling of Hydrogen and oxygen concentration.
15:20	SME-E/I informed about rectification of tripping of calandria vault cooling pump.
15:25	PED asked control room to take Calandra vault cooling pump in service for decay heat removal.
15:30	PED asked to take RB coolers in service after ensuring hydrogen concentration is not in deflagration/detonation range.

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

16:46	Off-Site Emergency Cleared.
17:00	Site Emergency terminated cleared.
17:10	Plant Emergency terminated.

C. Site Emergency Control Centre (SECC)

09:00	Inject-1.1 received
09:05	MA-2 Loss of coolant accident NAPS -1 shut down Emergency alert declared
09:16	Message sent (NREMC,TSC-NPCIL HQ, DIRECTOR- O, NPCIL) Acknowledgement Received 09:30
09:25	Plant Emergency Declared: MP:2.2 LOCA with ECCS failure., <u>EXIST IN NAPS-1 SHUTDOWN</u> <u>FOLLOWING CONDITIONS EXIST IN NAPS-2</u> <ol style="list-style-type: none"> 1. NAPS-2 trips on auto on seismic trip. 2. EMTR initiated alarm. 3. All three EDGs in NAPS-2 started and class-III power restored. 4. EMTR complete. 5. ABFP starts on auto. 6. PHT heat removal through thermos syphoning.
09:45	Conversion of plant site emergency into site emergency (MS 2.1)
10:01	Plant emergency converted into site emergency : (MS 2.1) notification sent.
10:05	DSS operated affected sector is G & H
10:06	Evacuation of non-essential staff from site, notified
10:07	ITB announced at site.
10:09	DSS briefing, south –west affected sector, wind flow is from North East .
10:10	2 hrs projection of DSS, affected sector, G (Map projection at 1.1 km, 5 km ,9.71 km)
10:11	Inject-1.4 received -Calandria box up : spurious box up , reasons of box up to be investigated - Moderator HX flow zero - no cooling flow - CRCS trend showing OPRD rupture - wide range radiation monitor >10 SV /HRS

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

10:20	All persons in site taken ITB
10:21	All non-essential staff transportation outside site completed.
10:22	Emergency Water Injection In Calandra Initiated
10:23	Containment intact, survey in site under progress
10:25	Calandria injection successful , Calandria hookup line leakage initiated Calandria level decreasing Containment pressure increasing 0.6 kg/cm2 wind stability class :Neutral Class
10:35 11:17 11:40 12:05 12:06 12:10 12:13	Offsite emergency declared , notification send (simulated time 01:00 hrs 23 /09/2024) PAR-1 notification send (Gangagarh & Maharajpur ITB suggested) (simulated time 01:00 hrs 23 /09/2024) Inject 1.6: plant state update, Calandria vault hookup continue, containment pressure decreasing at rapid rate , public gathering at Nandpur Gate Run for next 48 hrs dose projection & wind direction Hakimpur Khader, Niwari banger , Ramghat Khader ,ITB to introduce in next 40 hrs . PAR -2 ISSUED (SIMULATED TIME 08 00 HRS 25/09/24) Inject :1.7 a projected thyroid dose at NAND PUR required ITB PAR -3 issued (simulated time 1000 HRS 25/09/24) Nandpur sector –O suggested for ITB, sheltering ,prevent consumption of food & water
12 :35 12:40	INJECT ; 1.8 (simulated time 25 sept 2024 12 ;00 hrs) Cooling through Calandria vault injection continue -identification of & rectification done, leaky path (13 hrs @% sept 2024) -uncontrolled releases arrested, no possibility of re-criticality District authority wanted plant status for media briefing Press release issued by TS send to DM by DGM (HR) Inject :2.2 (simulated time 29/09/2024 008:00 hrs Activity of I-131 ,Cs -137 in food ,milk drinking water in villages showing high activity MAHRAJPUR ,GANGA GARH , OIL-2 GOKUL PURA ,RAM BAS OIL-3 STATE
12 :41	PAR-4 issued access control in 5 villages RATUNAGALA,MAHRAJPUR,GOKULPUR,RAMBAS,GANGABAS food local supply to be stopped immediately ,sheltering ITB, access control
13:20	REQUEST FOR CHANGE OVER from early phase to intermediate phase notification SEND BY SED CMG group , NREMC AERB, TSC,VSB,NPCIL (Annex -7 Issued) (simulated time 25/09/2024-13 HRS)
13:30	Acceptance for change from early phase to intermediate phase , Annex -8a notification received from CMG group DAE (25/09/24 13:05 hrs)
13:35	Annex -9a notification issued by SED (25/09/2420 :05 Hrs –12:HRS 26/09/2024)
13:40	INJECT 2.2 received
13:42	ANNEX -10A received FROM RERD for taking control charge (simulated time 26/09/2024 12:10 hrs)

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
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14:06	RERD PAR -1 (SIMULATED TIME 27/09/2024 12:30 HRS) temporary shifting of RATUNAGALA , Maharajpur villagers 1.5 km away, SECTOR –H, For other village Gokul Pur, Rambas, Gangagarh restriction food &water.
14:20	Inject 2.3 (11/10/2024 14:20 hrs gamma field 75 micro Sv/hrs in CHIRALI TALUKA
14:40	Inject 2.4(12/10/2024 14:40 hrs) GAMMA FIELD AT 1M HEIGHT 36 micro SV /HR,15 MAHARAJPUR RATUNAGLA 14 , micro SV /HR in Gokulpur Rambas
15:00	INJECT 2.5 FOOD AND VEGETABLE MARKET FUNCTIONING , PERSONAL CONTAMINATION OBSERVED , DECONTAMINATION REQUIRED (14/10/2024 08:00 HRS)
15:05	PAR-3 from RERD received (11/10/2024 15:00 HRS) TEMPORARY RELOCATION OF IDENTIFIED VILLIAGES , food stuff control for other villages identified
15:18	PAR -4 received (12/10/2024 15:30 HRS) MAHARAJPUR,RATUNAGALA shifting of villagers 15 km away other villages food and stuff control
15:30	Inject 2.6 (01/11/2024 10:00 HRS) DOSE RATE 30 MICROSV/HRS , BUT ACTIVITY CONCENTRATION IN FOOD STUFF STILL HIGH CS 180, I131-550BQ/KG
15:40	PAR -5 issued by RERD , stop food vegetable market functioning (14/10/ 08:30 HRS)
15:45	INJECT :2.7(19/11/2024 09:00 HRS) public dose in range of 12 mSV/year
16:18	INJECT :2.8 RERD FOOD RESTRICTION LIFTED , OFF SITE EMERGENCY IS ADVISED TO TERMINATE FROM 01:00 HRS (01HRS (19/11/2024 09:00 HRS)
16:20	PAR -6 (01/11/2024) restriction lifted for food milk etc , outdoor activity restriction continue for GANGABAS,GOKULPUR
16:30	PAR-7 (23/11/2024 09 :00hrs) Offsite emergency terminated (25/11/2024 16:46 hrs)
17:00	No further inject site emergency terminated (25/11/2024 16:46 hrs)

D. Environmental Survey Lab (ESL):

Time	Activity
09:00	All Team Members of ESL available at ESL Control Room
09:24	Observers (02 No.) reached at ESL Control Room
09:33	Message of Plant Emergency declared in Unit#1 received by email
09:34	OIC,ESL instructed to collect air Particulate and Iodine Samples at ESL
09:35	OIC ESL asked ESL survey team to survey surrounding area of ESL
09:40	Survey Team informed dose rate 0.12 µSv/hr (Normal Background level)
09:40	OIC,ESL Contacted from SHP for availability of Radiation Emergency Vehicle
09:40	Wind Speed & Wind Direction reported to OIC, ESL(WS at 30M - 0.8 M/S, WD at 30M – NW and affected sector – SE)

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
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09:45	OIC, ESL reported PECC present WS, WD & affected sector (WS at 10M - 0.8 M/S, WD at 10M – WNW, WS at 30M - 0.8 M/S, WD at 30M – NW and probable affected sector – SE & ESE, Affected Village Gokulpur Bangar, Retuka Nagla & Ramghat Bangar)
09:48	SHP informed OIC,ESL regarding shifting of plant emergency to site emergency
09:50	OIC,ESL contacted Transport office for radiation emergency vehicle
09:51	OIC, ESL, asked to ESL survey team to approach to 1.6 Km boundary for survey, with survey meter and sampling kit.
09:55	Radiation survey vehicle reported at ESL
09:55	OIC , ESL contacted PECC about met data and affected sector and village
10:01	E-mail regarding Site emergency declaration received.
10:04	OIC, ESL instructed ESL survey team survey at 1.6 Km boundary and was departed for survey.
10:05	OIC,ESL contacted to TSS at SECC and advised for evacuation of non essential staff from site (Mock).
10:07	ESL survey team reported radiation field 0.12 μ Sv/hr at Guard House.
10:13	ESL survey team reported radiation field 0.14 μ Sv/hr between Guard House and Nandpur gate.
10:15	ESL survey team reported radiation field 0.14 μ Sv/hr at plant site boundary/ Nandpur gate.
10:21	ESL survey team reported radiation field 0.18 μ Sv/hr at Silari Tiraha
10:27	ESL survey team reported radiation field 0.40 μ Sv/hr at Jargawan cross road.
10:39	OIC ,ESL informed SECC regarding latest met condition and affected sector 'H' and affected village Maharajpur & Retuka nagla.
10:45	OIC,ESL instructed to ESL survey team for survey at Maharajpur and Retuka nagla.
10:54	Gross beta gamma particulate Air activity was reported <0.30 mBq/m ³ and air iodine activity <0.06 mBq/m ³ at ESL.
10:57	ESL survey team reported radiation field 0.38 μ Sv/hr at Maharajpur village boundary.
11:03	ESL survey team reported radiation field 0.40 μ Sv/hr at Retuka village.
11:13	OIC,ESL instructed ESL survey team to move towards Gangagarh to carry out radiation survey.
11:16	ESL survey team reported radiation field 0.58 μ Sv/hr while approaching Gangagarh.
11:18	2 nd ESL team was contacted over wireless and team reported radiation field of 0.60 μ Sv/hr at Maharajpur village.
11:22	ESL survey team reported radiation field 1.1 μ Sv/hr at Gangagarh.
11:27	ESL survey team reported radiation field 1.0 μ Sv/hr at Retuka nagla, 1.2 μ Sv/hr at Maharajpur, 0.8 μ Sv/hr at Gangagarh village and 0.6 μ Sv/hr at Gokulpur village(Mock)
11:34	ESL survey team was asked to move towards Rambas and chiroli taluka and do survey (First Side Sector).
11:38	ESL survey team reported radiation field 0.68 μ Sv/hr at Rambas. (Mock)
11:43	ESL survey team reported radiation field 0.70 μ Sv/hr at chiroli taluka. (Mock)

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
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	PAR-1 received through email
11:44	ESL survey team reported air iodine activity 100 Bq/m ³ , air particulate activity 10 Bq/m ³ at Gangagarh. (Mock)
11:46	ESL survey team reported air iodine activity 110 Bq/m ³ , air particulate activity 15 Bq/m ³ at Maharajpur. (Mock)
11:49	ESL survey team reported radiation field in increasing trend and reported 6.0 µSv/hr at Gangagarh. (Mock)
11:50	Air iodine activity 100 Bq/m ³ , Air particulate activity 10 Bq/m ³ at ESL. (Mock)
11:51	ESL survey team reported radiation field 8 µSv/hr at Maharajpur.
11:59	PAR-2 received by Email
11:59	OIC,ESL discussed with SHP regarding inject and advised ITB at Nandpur Village as per inject.
12:13	PAR-3 received through email
12:17	ESL survey team reported radiation field 75-80 µSv/hr at Gangagarh (Mock).
12:21	ESL survey team reported radiation field 85-90 µSv/hr at Maharajpur(Mock)
12:31	ESL survey team reported radiation field 180-190 µSv/hr at Maharajpur (Mock)
12:32	ESL survey team reported radiation field 170-180 µSv/hr at Retuka Nagla(Mock)
12:34	ESL survey team reported radiation field 40-50 µSv/hr at Gokulpur(Mock)
12:36	ESL survey team reported radiation field 45-55 µSv/hr at Rambas(Mock)
12:49	OIC,ESL instructed ESL survey team to collect samples at Maharajpur & Gangagarh
13:10	Intimation of early phase to intermediate phase
13:15	RERD approached for change in condition
13:45	ESL survey team reported radiation field 45-50 µSv/hr at Gokulpur Bangar (Mock)
13:48	ESL survey team reported radiation field 170-180 µSv/hr at Maharajpur(Mock)
13:55	ESL survey team reported radiation field 175-185 µSv/hr at Maharajpur(Mock)
13:58	ESL survey team reported radiation field 172-180 µSv/hr at Maharajpur(Mock)
14:00	ESL survey team reported radiation field 45-50 µSv/hr at Rambag(Mock)
14:12	ESL survey team reported radiation field 1.2 µSv/hr at Alipur(Mock)
14:24	ESL survey team reported radiation field 0.7 µSv/hr at Kalyanpur & 0.75 µSv/hr at Kalyanpur Aslatpur(Mock)
14:31	ESL survey team reported radiation field 0.75 µSv/hr at Chirpuli(Mock)
14:32	ESL survey team reported radiation field 58 µSv/hr at Chiroli Taluka Primary School (Mock)
14:34	ESL survey team reported radiation field 57 µSv/hr at Chiroli Taluka diversion point (Mock)
14:37	ESL survey team reported radiation field 92 µSv/hr at Chiroli Taluka Panchyat office (Mock)
14:47	ESL survey team reported radiation field 16 -18 µSv/hr at Gangagarh. (Mock)
14:48	ESL survey team reported radiation field 15 -16 µSv/hr at Gokulpur Bangar(Mock)

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

14:50	ESL survey team reported radiation field 15 -16 µSv/hr at Rambag(Mock)
14:52	ESL survey team reported radiation field 20 -22 µSv/hr at Gokulpur Khadar
14:54	ESL survey team reported radiation field 25 -30 µSv/hr at Maharajpur(Mock)
14:57	ESL survey team reported radiation field 30 -35 µSv/hr at Ratuka Nagla(Mock)
15:25	Received inject 2.6 at ESL
15:30	Received PAR 4 at ESL
15:38	Received inject 2.7 at ESL
16:00	Received inject 2.8 at ESL
16:24	Termination of Off-Site Emergency received from RERD

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Annexure-2

List of Observers with their locations:

Sr. No.	Name (S/Shri)	From	Area of observation
1.	Shahzad Mohseen	TAPS	SECC
2.	D. Durgaprasad	TAPS	ESL
3.	K. Chitharanjan	KGS	PECC
4.	Deepak Sharma	CMG	Field response of ESL & District responders
5.	R K Saraogi	HQ	Controller
6.	M Panda	HQ	PECC & Control room
7.	K. Girish	HQ	ESL
8.	Nrependra Kumar	HQ	SECC
9.	Nita Singh (DSS)	HQ, DSS	DSS Support
10.	Anup Yadav (DSS)	HQ, DSS	DSS Support
11.	Saras Seth	CMG	SECC & PECC
12.	S K Dubey	AERB	SECC
13.	Sh Neeraj Kumar	AERB	PECC and Field response of District responders
14.	Lalit mohan Sharma	AERB	DOEC
15.	Nilesh Joshi	AERB	PECC
16.	Ajay Kumar Verma	NDMA	SECC
17.	Kriti Pratap singh	NDMA	SECC
18.	B.B Vaidya, DIG	NDRF	SECC
19.	P.K. Tiwari, Commandant	NDRF	SECC
20.	Kunal Tiwari	NDRF	DEOC, Bulandshahr
21.	Harvinder singh	NDRF	DEOC, Bulandshahr
22.	Chandra kant	UPSDMA	DEOC, Bulandshahr

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Annexure-3




NOTIFICATION SHEETS OF EMERGENCY MESSAGES

Declaration of Emergency Alert by SCE, NAPS:

Appendix - C				
<div style="text-align: center;"> न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड Nuclear Power Corporation of India Limited (भारत सरकार का उद्यम A Govt. of India Enterprise) नरोरा परमाणु विद्युत केंद्र Narora Atomic Power Station </div>				
EMERGENCY ALERT DECLARATION COMMUNICATION (EXERCISE) E MAIL / FAX MESSAGE				
Date: <u>21-09-2024</u> Time: <u>09:05</u>				
From SHIFT CHARGE ENGINEER Fax No: 05734-222 89 E-mail: napscon@npcil.co.in	For NREMC- AERB Director (O), NPCIL Technical Support Centre (TSC) VSB, NPCIL	FAX No 022-2557 2993 022-2599 3318 022-2550 0222	Phone No 022-2551 1212 9757050364 /65 /67 022-2599 3315 /16 022-2555 6572 022 2599 1999 022-2599 2999 022-2599 2214 /05 /06	e-mail id nremc@acrb.gov.in do@npcil.co.in copis@npcil.co.in
यह मात्र एक अभ्यास है THIS IS AN EXERCISE ONLY				
एनएसीएस ईआई-1 ये दिनांक <u>21-09-2024</u> के <u>09:05</u> बजे आपातकाल सचेत घोषित होने की सूचना दी जाती है। "This is to inform Declaration of Emergency Alert at NAPS in Unit <u>1</u> at: <u>09:05</u> hrs. of <u>21-09-2024</u> (Date)".				
घटना की टाइम लाईन Time line of event: <u>05:40 - 06:00 (21-09-2024)</u>				
प्रभावित संयंत्र की स्थिति है Plant condition of the affected Unit: <u>Shut down</u>				
अप्रभावित संयंत्र की स्थिति है Plant condition of the unaffected Unit: <u>Operating at 100% FP</u>				
Initiating condition: <u>MA-2 Loss of Coolant Accident</u>				
कृपया सभी सम्बन्धित अधिकारियों को सूचित करें और पावती प्राप्ति की सूचना दें। Please inform the officials concerned and acknowledge.				
<div style="text-align: right;"> (Name & Signature) Shift Charge Engineer </div>				
Note: The above notification is to be telephonically communicated immediately on declaration to all important officials.				
Message Conveyed by (Name & Signature): <u>N.K. Sinha</u> at <u>09:16</u> Hrs.				
	Message Conveyed		Acknowledgement Received	
NREMC, AERB	Date: <u>21-09-24</u> Time: <u>09:16</u>	Date: <u>21-09-24</u> Time: <u>09:30</u>		
TSC-NPCIL-HQ	Date: <u>21-09-24</u> Time: <u>09:16</u>	Date: <u>21-09-24</u> Time: <u>09:30</u>		
Director (O), NPCIL	Date: <u>21-09-24</u> Time: <u>09:16</u>			

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Declaration of Plant Emergency by SCE, NAPS:

Annexure - 1(D)						
		न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड Nuclear Power Corporation of India Limited (भारत सरकार का उद्यम A Govt. of India Enterprise) नरौरा परमाणु विद्युत केंद्र Narora Atomic Power Station				
PLANT EMERGENCY DECLARATION COMMUNICATION (EXERCISE) E-MAIL / FAX MESSAGE						
Date <u>21-09-2024</u> Time <u>09:25</u>						
From	For	FAX No	Phone No	e-mail id		
PLANT EMERGENCY DIRECTOR	NREMC- AERB	022-2557 2993	022-2551 1212 9757950064 /65 /67	nremc@erb.gov.in ✓		
	CMG-DAE-ECR	022-2283 0441	022-2202 3978 / 9969201361	daecr@dae.gov.in ✓		
Fax No: 05734- 222112)	Alt CMG-DAE-BCR	022-2599 1030 022-2551 5233	022-2599 1070 022-2599 1071	vsbeer@npcil.co.in ✓		
	Director (O), NPCIL	022-2599 3318	022-2599 3315 /16 022-2555 6572	do@npcil.co.in ✓		
Phone No: 05734 - 222103	Technical Support Centre (TSC) VSB, NPCIL	022-2550 0222	022-2599 1999 022 2599 2999 022-2599 2214 /05 /06	copis@npcil.co.in ✓		
	E-mail: rapsacr@npcil.co.in	OIC-ESL	05734-222119	05734-222119 ypgauran@npcil.co.in		
यह मात्र एक अभ्यास है THIS IS AN EXERCISE ONLY						
रनएपीएस की ईकाई-1/2 में संयंत्र की स्थिति के कारण संयंत्र आपात की स्थिति बन गई है अतः दिनांक के बजे संयंत्र आपातस्थिति शुरू होने की घोषणा की जाती है। "Plant conditions in Unit- <u>I</u> of NAPS have led to the situation of Plant Emergency. Hence Plant Emergency has been declared at <u>09:25</u> hrs of <u>21-09-2024</u> (Date) at NAPS".						
घटना की टाइम लाइन Time line of event: <u>06:00 - 07:00 (21-09-2024)</u>						
प्रभावित संयंत्र की स्थिति है Plant condition of the affected Unit : <u>Shut down</u>						
अप्रभावित संयंत्र की स्थिति है Plant condition of the unaffected Unit : <u>Operating at 100% FP</u> <u>MP-2.2 LOCA with imminent ECCS failure</u>						
Initiating Condition:						
कृपया सभी सम्बंधित अधिकारियों को सूचित करें और पावती प्राप्ति की सूचना दें। Please inform the officials concerned and acknowledge						
 (Name & Signature) PLANT EMERGENCY DIRECTOR						
Message Conveyed by (Name & Signature): <u>N.K. Sinha</u> at <u>9:35</u> Hrs.						
	Message Conveyed		Acknowledgement Received			
NREMC, AERB	Date: <u>21-09-24</u> Time: <u>09:35</u>	Date: <u>21/09/24</u> Time: <u>09:44</u>				
CMG-DAE-ECR	Date: <u>21-09-24</u> Time: <u>09:35</u>	Date: <u>21-09-24</u> Time: <u>09:44</u>				
Alternate CMG-DAE-ECR	Date: <u>21-09-24</u> Time: <u>09:35</u>	Date: <u>21-09-24</u> Time: <u>09:44</u>				
TSC-NPCIL-HQ	Date: <u>21-09-24</u> Time: <u>09:35</u>	Date: <u>21-09-24</u> Time: <u>09:44</u>				
Director (O), NPCIL	Date: <u>21-09-24</u> Time: <u>09:35</u>					
OIC-ESL	Date: <u>21-09-24</u> Time: <u>09:35</u>					

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Declaration of Site Emergency from SED, NAPS:

<div style="display: inline-block; text-align: center; width: 60%;"> <p>न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड Nuclear Power Corporation of India Limited (भारत सरकार का उद्यम A Govt. of India Enterprise) नरौरा परमाणु बिद्युत केंद्र Narora Atomic Power Station</p> </div>				
<p>SITE EMERGENCY DECLARATION COMMUNICATION (EXERCISE) E-MAIL / FAX MESSAGE</p>				
<p>Date: Time:</p>				
<p>From</p> <p>SITE EMERGENCY DIRECTOR (SED) (Station Director, NAPS)</p> <p>Fax No: 05734- 222112</p> <p>Phone No: 05734 - 222103</p> <p>E-mail: napsecr@npcil.co.in</p>	<p>For</p> <p>Incident Commander (DM Bulandshahr)</p> <p>NREMC- AERB</p> <p>CMG-DAE-ECR</p> <p>Alt CMG-DAE-ECR</p> <p>Director (O), NPCIL</p> <p>RERD-DAE</p> <p>Technical Support Centre (TSC) VSB, NPCIL</p> <p>OIC-ESL</p>	<p>FAX No</p> <p>05732-280898</p> <p>022-2557 2993</p> <p>022-2283 0441</p> <p>022-2599 1080 022-2551 5283</p> <p>022-2599 3318</p> <p>022-2550 5313</p> <p>022-2550 0222</p> <p>05734-222119</p>	<p>Phone No</p> <p>05732-280331</p> <p>022-2551 1212 9757050064 /65 /67</p> <p>022-2202 3978</p> <p>022-2599 1070</p> <p>022-2599 3315/16 022-2555 6572</p> <p>022-2559 3717</p> <p>022-2599 1999 022-2599 2999 022-2599 2214 /05 /06</p> <p>05734-222119</p>	<p>e-mail id</p> <p>dmul@aic.in</p> <p>nremc@aerb.gov.in</p> <p>dacecr@dae.gov.in</p> <p>vsbecr@npcil.co.in</p> <p>do@npcil.co.in</p> <p>rerdl@barc.gov.in</p> <p>copis@npcil.co.in</p> <p>ypgautam@npcil.co.in</p>
<p>यह मात्र एक अभ्यास है THIS IS AN EXERCISE ONLY</p> <p>नरौरा परमाणु बिद्युत केंद्र में स्थल आपातकाल के शुरु होने की सूचना दी जाती है । This is to inform the start of Site Emergency at NAPS site.</p> <p>नरौरा परमाणु बिद्युत केंद्र की इकाई- 1 में आई. सी. कंडीशन MS-31 के कारण 21.9.24 (दिन/माह/वर्ष) के 09:45 बजे (समय) स्थल आपातकाल की घोषणा की जाती है ।</p> <p>Site Emergency has been declared due to Initiating condition " MS 1-1 " in NAPS Unit- 1 at 9:45 hrs. on 21-09-2024 (DD/MM/YYYY).</p> <p>कृपया सभी सम्बंधित अधिकारियों को सूचित करें और पावती प्राप्ति की सूचना दें । Please inform the concerned officials and acknowledge.</p> <div align="right" style="margin-top: 20px;"> स्थल आपातकाल निदेशक Site Emergency Director </div>				
<p>Message Conveyed by (Name & Signature): <u>A-K. Sinha</u> <u>Namini</u> at 10:01 Hrs.</p>				
	Message Conveyed		Acknowledgement Received	
Incident Commander (DM, Bulandshahr)	Date: 21.9.24 Time: 10:01	Date: 21.9.24 Time: 10:06		
CMG-DAE-ECR	Date: 21.9.24 Time: 10:01	Date: 21.9.24 Time: 10:06		
Alt CMG-DAE-ECR	Date: 21.9.24 Time: 10:01	Date: 21.9.24 Time: 10:06		
NREMC- AERB	Date: 21.9.24 Time: 10:01	Date: 21.9.24 Time: 10:06		
TSC-NPCIL-HQ	Date: 21.9.24 Time: 10:01	Date: 21.9.24 Time: 10:06		
RERD DAE	Date: 21.9.24 Time: 10:01	Date: 21.9.24 Time: 10:06		
OIC-ESL, NAPS	Date: 21.9.24 Time: 10:01			
Director (O), NPCIL	Date: 21.9.24 Time: 10:01			

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Advice of Site Emergency Director to IC for notifying declaration of OEE:

Appendix-3(A)

Advice of Site Emergency Director to RO/IC for notifying Declaration of Off-site Emergency (EXERCISE)

	न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड Nuclear Power Corporation of India Limited (भारत सरकार का उद्यम A Govt. of India Enterprise) नरौरा परमाणु विद्युत केंद्र Narora Atomic Power Station			
E-mail / Fax Message			Date:	
FROM:	FOR	FAX NO	PHONE NO	
Site Emergency Director (SED), NAPS SITE Fax No: 05734-222112 Phone No: 05734-222103 e-mail: napsecr@npcil.co.in	1. DM, Bulandshahr	05732-280898	05732-280351*	
	RPT:			E-MAIL
	1. CMG-DAE-ECR	022-2283 0441	022-2202 3978	dmbul@nic.in
	2. Alt CMG-DAE-ECR	022-2599 1080 022-2556 3350	022-2599 1070	daeecr@dae.gov.in vsbecr@npcil.co.in
	3. NREMC-AERB	022-2557 2993	022-2551 1212 9757050064 /65	nrermc@aerb.gov.in
	4. Director(O), NPCIL	022-2599 3318	022-2599 3315/16 022-2555 6572	do@npcil.co.in
	5. Technical Support Centre, VSB, NPCIL	022-2550 0222	022-2599 1999 022-2599 2999 25992214/05/06	copis@npcil.co.in
	6. SCE, NAPS	05734-222189	057434-222114	scenaps@npcil.co.in
	7. Oic, ESL	05734-222119	05734-222119	ypgautam@npcil.co.in

THIS IS AN EXERCISE ONLY

THIS IS TO NOTIFY THAT

PLANT CONDITIONS AT NAPS UNIT 1 WHICH HAD LED TO DECLARATION OF SITE EMERGENCY HAS FURTHER DETERIORATED AND ~~THERE IS A POTENTIAL FOR RADIOACTIVE RELEASE IN PUBLIC DOMAIN/~~ RADIOACTIVE RELEASE HAS OCCURRED IN PUBLIC DOMAIN (strike not applicable).

HENCE OFF-SITE EMERGENCY HAS BEEN DECLARED AT 01.00 (simulated time) OF 23.9.24 (simulated date) AT NAPS SITE.

BRIEF OF THE PLANT CONDITIONS OF THE AFFECTED UNIT(S): unit-1, Shut down

IT IS ADVISED TO ISSUE NOTIFICATION OF OFF-SITE EMERGENCY AT NAPS SITE.

THE AFFECTED SECTOR IS H. IT IS ALSO ADVISED TO ALERT PEOPLE AND IMPLEMENT STAYING IN-DOOR AROUND NAPS SITE AND AVOID CONSUMPTION OF OPEN FOOD AND WATER IN THE AFFECTED AREAS MENTIONED BELOW.

Date	Time	Plume is towards	Affected Villages
21.9.24	10.35	Sector - H WIND - NNW	Sector H villages Mahargapur, Ganga Gauri

Regards (.)


 SITE EMERGENCY DIRECTOR
 (STATION DIRECTOR, NAPS)

Message Conveyed by (Name & Signature) <u>N.K. Sinha</u> at <u>11:05</u> Hrs.				
Acknowledgement:	Message Conveyed		Acknowledgement Received	
	Date:	Time:	Date:	Time:
DM, Bulandshahr				

*DM, Bulandshahr to be informed telephonically also.

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Protective Action Recommendation (PAR)-1

Appendix-5(A)

Protective Action Recommendation (PAR)

(This is an Exercise only)

(For use by SED during Early Phase for use in scenario of projected dose)

		न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड Nuclear Power Corporation of India Limited (भारत सरकारका उद्यम A Govt. of India Enterprise) नरौरा परमाणु विद्युत केंद्र Narora Atomic Power Station			
E-mail / Fax Message				Date:	
FROM	FOR	FAX NO	PHONE NO	E-MAIL	
Site Emergency Director (SED), NAPS SITE e-mail: napsecr@npcil.co.in	DM, Bulandshahr	05732-280898	05732-280351	dmbul@nic.in	
(This is an Exercise only)					
PAR No: <u>1</u> Date (Simulated): <u>23/9/2024</u> Time (Simulated): <u>01:00 Hrs</u>					
Technical assessment of the emergency situation based on Plant parameters and Meteorological conditions indicate requirement of protective actions to reduce the consequences.					
As per meteorological conditions, the Affected sector(s) will be <u>H</u> .					
The Protective Actions to be implemented in the affected villages/areas and the time within which the protective actions are to be implemented is indicated in Annexure-1 of this PAR.					
Kindly Acknowledge receipt of this Message.					
<div style="text-align: right;">  (SITE EMERGENCY DIRECTOR) </div>					
Fax No: 05734-222112, Phone No: 05734-222103					
Message Conveyed by (Name & Signature) <u>A.K. Sinha</u> at <u>11:17</u> Hrs.					

RPT Message			
	FAX NO	PHONE NO	E-MAIL
CMG-DAE-ECR	022-2283 0441	022-2202 3978	daecr@dae.gov.in
Alt CMG-DAE-ECR	022-2599 1080 022-2556 3350	022-2599 1070	vsbecr@npcil.co.in
NREMC-AERB	022-2557 2993	022-2551 1212 9757050064 /65	nremc@aerb.gov.in
RERD, DAE	022-2550 5313	022-2559 3717	rerd@barc.gov.in
Director(O), NPCIL	022-2599 3318	022-25993315/16 022-25556572	do@npcil.co.in
Technical Support Centre, VSB, NPCIL	022-25500222	022-2599 1999 022-2599 2999 2599 2214/05/06	copis@npcil.co.in
OIC, ESL	05734-222119	05734-222119	ypgautam@npcil.co.in

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024 (Conducted at NAPS on 21st September 2024)

Annexure-2 (cf Appendix-SA)

(This Annexure is a Format of Protective Action Recommendation which will be obtained from DSS. This Format is kept here for representation only)

VILLAGE WISE PAR TABLE

S. No.	Protective Actions	Villages/Areas requiring Protective Actions (Time period of completion of Protective Actions) (Note: The order of villages is in the decreasing order of Projected Effective dose)	Max. Projected Dose (mSv)
1	IT3	Village 1 (Time Period) MAHARAJPUR (within 1 hr) Village 2 (Time Period) GANGAGARH (within 2 hr) Village 3 (Time Period) Village 4 (Time Period)	1580 (1580) 79.33
2	Sheltering	Village 1 (Time Period) MAHARAJPUR Village 2 (Time Period) within 2 hr	50.1.
3	Food Control	Village 1 (Time Period) Village 2 (Time Period)	X
4	Evacuation	Village 1 (Time Period) Village 2 (Time Period)	X

If Evacuation is recommended, the route to be taken to avoid Radioactive Plume: X

ADDITIONAL RECOMMENDATIONS:

- ✓ Public to be instructed for breathing air filtered through wet folded handkerchiefs or towels.
- ✓ Washing the body and changing clothing as soon as possible after significant exposure to a radioactive plume of any composition.
- ✓ Keep all sources of food and drinking water covered and Avoid consumption of open food and water.
- ✓ Restrict consumption and distribution of local produce (eg: crops, leafy vegetables, fruits etc.), wild-grown products, milk from grazing animals and rainwater. If the restricted food is essential provide alternate supply of uncontaminated food.
- ✓ Cattle to be prevented from grazing outside and be given stored (covered) feed.
- X Advice people/fisherman from venturing to Sea/River/Lake till further notice and warn people/fisherman already at Sea/River/Lake and direct them to return to safer locations. (Strike out if not applicable)

iii. Any additional recommendations may be included.

mail:
Sent to DM BSR
11:37 AM

21/09/2024
Protect Agam
11:00 AM

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Protective Action Recommendation (PAR)-2:

Appendix-5(A)

Protective Action Recommendation (PAR)

(This is an Exercise only)

(For use by SED during Early Phase for use in scenario of projected dose)



न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड
Nuclear Power Corporation of India Limited
(भारत सरकारका उद्यम A Govt. of India Enterprise)
नरोरा परमाणु बिद्युत केंद्र Narora Atomic Power Station



E-mail / Fax Message

Date: 21/09/2024

FROM	FOR	FAX NO	PHONE NO	E-MAIL
Site Emergency Director (SED), NAPS SITE e-mail: napsecr@npcil.co.in	DM, Bulandshahr	05732-280898	05732-280351	dmbul@nic.in

(This is an Exercise only)

PAR No: 2 Date (Simulated): 23/09/24 Time (Simulated): 12:30

Technical assessment of the emergency situation based on Plant parameters and Meteorological conditions indicate requirement of protective actions to reduce the consequences.

As per meteorological conditions, the Affected sector(s) will be H, G & F.

The Protective Actions to be implemented in the affected villages/areas and the time within which the protective actions are to be implemented is indicated in Annexure-1 of this PAR.

Kindly Acknowledge receipt of this Message.

21/09/2024
(SITE EMERGENCY DIRECTOR)

Fax No: 05734-222112, Phone No: 05734-222103

Message Conveyed by (Name & Signature) N-K. Sinha at 11:59 hrs Hrs.

RPT Message

	FAX NO	PHONE NO	E-MAIL
CMG-DAE-ECR	022-2283 0441	022-2202 3978	daeecr@dae.gov.in
Alt CMG-DAE-ECR	022-2599 1080 022-2556 3350	022-2599 1070	vsbecr@npcil.co.in
NREMC-AERB	022-2557 2993	022-2551 1212 9757050064/65	nremc@ aerb.gov.in
RERD, DAE	022-2550 5313	022-2559 3717	rerd@bare.gov.in
Director(O), NPCIL	022-2599 3318	022-25993315/16 022-25556572	do@npcil.co.in
Technical Support Centre, VSB, NPCIL	022-25500222	022-2599 1999 022-2599 2999 2599 2214/05/06	copis@npcil.co.in
OIC, ESL	05734-222119	05734-222119	ypgautam@npcil.co.in

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

(Revised PAR for 48 hrs projection)

Annexure-1 (of Appendix-5A)

(This Annexure is a Format of Protective Action Recommendation which will be obtained from DSS. This Format is kept here for representation only)

VILLAGE WISE PAR TABLE

S. No.	Protective Actions	Villages/Areas requiring Protective Actions (Time period of completion of Protective Actions) <i>(Note: The order of villages is in the decreasing order of Projected Effective dose)</i>	Max. Projected Dose (mSv)	Completion within
1	ITB	Village 1 (Time Period) MAHARATPUR Village 2 (Time Period) GANGABAS BANGAR Village 3 (Time Period) BITAON, HAKEMPUR Village 4 (Time Period) KADAR, GANGAGARH NITANAPUR, NIWAR - 100, 63.1, 50.1	2500 251 200, 126 126, 100 63.1	(1 hr) (3 hrs) (3, 8 hrs) (2, 4, 6 hrs) (3 hrs)
2	Sheltering	Village 1 (Time Period) KAMGHAT KHADAR Village 2 (Time Period) MAHARATPUR (2 hours)	63.1	
3	Food Control	Village 1 (Time Period) Village 2 (Time Period) Above All .	Yes	
4	Evacuation	Village 1 (Time Period) Village 2 (Time Period) —	Not Required	

If Evacuation is recommended, the route to be taken to avoid Radioactive Plume: Not Required.

ADDITIONAL RECOMMENDATIONS:

- ☒ i Public to be instructed for breathing air filtered through wet folded handkerchiefs or towels.
- ☒ ii Washing the body and changing clothing as soon as possible after significant exposure to a radioactive plume of any composition.
- ☒ iii Keep all sources of food and drinking water covered and Avoid consumption of open food and water.
- ☒ iv Restrict consumption and distribution of local produce (eg: crops, leafy vegetables, fruits etc.), wild-grown products, milk from grazing animals and rainwater. If the restricted food is essential provide alternate supply of uncontaminated food.
- ☒ v Cattle to be prevented from grazing outside and be given stored (covered) feed.
- ☒ vi Advise people/fisherman from venturing to Sea/ River/Lake till further notice and warn people/fisherman already at Sea/ River/Lake and direct them to return to safer locations. (Strike out if not applicable)
- ☐ vii Any additional recommendations may be included.

[Signature]
21/09/2024
Protective Action

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)



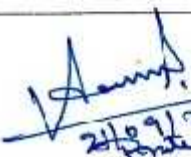
Protective Action Recommendation (PAR)-3:

Appendix-6(A)

Protective Action Recommendation (PAR)

(This is an Exercise only)

(For use in scenario of measured radiological conditions)

 <div style="text-align: center;"> <p>न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड Nuclear Power Corporation of India Limited (भारत सरकार का उद्यम A Govt. of India Enterprise) नरोरा परमाणु विद्युत केंद्र Narora Atomic Power Station</p> </div> 				
E-mail / Fax Message				Date: <u>21.9.2024</u>
FROM	FOR	FAX NO	PHONE NO	E-MAIL
Site Emergency Director (SED), NAPS SITE e-mail: napsecr@npcil.co.in	DM, Bulardshah	05732-280898	05732-280351	dmbul@nic.in
(This is an Exercise only)				
PAR No: <u>3</u> Date (Simulated): <u>25.9.2024</u> Time (Simulated): <u>10:00</u>				
<p>Technical assessment of the emergency situation based on Field measurements and Assessment by Radiological Survey in the affected areas indicate requirement of protective actions to reduce the radiological consequences</p> <p>The Protective Actions to be implemented / continued to be implemented in the affected villages / areas and the time within which the protective actions are to be implemented is indicated in Annexure of this PAR.</p> <p>Kindly Acknowledge receipt of this Message.</p>				
<div style="text-align: right;">  (SITE EMERGENCY DIRECTOR) Fax No: 05734-222112, Phone No: 05734-222103 </div>				
Message Conveyed by (Name & Signature) <u>Manish Chandra Sinha</u> at <u>12:13</u> Hrs.				
RPT Message				
	FAX NO	PHONE NO	E-MAIL	
CMG-DAE-ECR	022-2283 0441	022-2202 3978	daeecr@dae.gov.in	
Alt CMG-DAE-ECR	022-2599 1080 022-2556 3350	022-2599 1070	vsbecr@npcil.co.in	
NREMC-AERB	022-2557 2993	022-2551 1212 9757050064 /65	nremc@ae.b.gov.in	
RERD, DAE	022-2550 5313	022-2559 3717	rerd@barc.gov.in	
Director(O), NPCIL	022-2599 3318	022-2599 3315/16 022-2555 6572	do@npcil.co.in	
Technical Support Centre, VSB, NPCIL	022-2550 0222	022-2599 1999 022-2599 2999 2599 2214/05/06	copis@npcil.co.in	
OIC, ESL	05734-222119	05734-222119	ypgautam@npcil.co.in	

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024

(Conducted at NAPS on 21st September 2024)

Annexure of PAR-in scenario of measured radiological conditions

Protective Actions to be implemented / continued to be implemented based on Radiological Measurements

(This is an Exercise only)

Village(s) / Areas Affected: NANDPUR VILLAGE (SECTOR 'O')		
Protective Action:	Action Required (Yes/No)	Time period for completing protective action (as applicable)
Implement Access control in affected area	Yes	(As early as possible)
Sheltering	Yes	(As per Annexure early as possible)
Iodine/Thyroid Blocking (ITB) distribution	Yes	(As early as possible)
Prevent Consumption of open food and water	Yes	(As early as possible)
Evacuation	NO (Not Required)	

(If radiological survey of multiple villages/area is done, the contents of the table can be repeated for each village/area)

(As early as possible - shall be within 1 hr)

If Evacuation is recommended, the route to be taken to avoid Radioactive Plume: _____




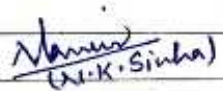
ADDITIONAL RECOMMENDATIONS:

- ✓ Public to be instructed for breathing air filtered through wet folded handkerchiefs or towels.
- ✓ Washing the body and changing clothing as soon as possible after a significant exposure to a radioactive plume of any composition.
- ✓ Keep all sources of food and drinking water covered and Avoid consumption of open food and water.
- ✓ Restrict consumption and distribution of local produce (eg: crops, leafy vegetables, fruits etc), wild-grown products, milk from grazing animals and rainwater. If the restricted food is essential provide alternate supply of uncontaminated food.
- ✓ Cattle to be prevented from grazing outside and be given stored (covered) feed.
- ✓ Advise people/fisherman from venturing to Sea/ River/Lake till further notice and warn people/fisherman already at Sea/ River/Lake and direct them to return to safer locations. (Strike out if not applicable)

✓ Any additional recommendations may be included.

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Protective Action Recommendation (PAR)-4:

Appendix-6(A)				
Protective Action Recommendation (PAR) (This is an Exercise only) (For use in scenario of measured radiological conditions)				
	न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड Nuclear Power Corporation of India Limited (भारत सरकारका उद्यम A Govt. of India Enterprise) नरौरा परमाणु विद्युत केंद्र Narora Atomic Power Station			
E-mail / Fax Message				Date: <u>21/09/2024</u>
FROM	FOR	FAX NO	PHONE NO	E-MAIL
Site Emergency Director (SED), NAPS SITE e-mail: napsecr@npcil.co.in	DM, Bulandshahr	05732-280898	05732-280351	dmbul@nic.in
(This is an Exercise only)				
PAR No: <u>4</u> Date (Simulated): <u>25/09/2024</u> Time (Simulated): <u>(14:00 - 18:00 hrs)</u>				
Technical assessment of the emergency situation based on Field measurements and Assessment by Radiological Survey in the affected areas indicate requirement of protective actions to reduce the radiological consequences.				
The Protective Actions to be implemented / continued to be implemented in the affected villages / areas and the time within which the protective actions are to be implemented is indicated in Annexure of this PAR.				
Kindly Acknowledge receipt of this Message.				
<div style="text-align: right;">  (SITE EMERGENCY DIRECTOR) Fax No: 05734-222112, Phone No: 05734-222103 </div>				
Message Conveyed by (Name & Signature) <u></u> at <u>12:48</u> Hrs.				
RPT Message				
	FAX NO	PHONE NO	E-MAIL	
CMG-DAE-ECR	022-2283 0441	022-2202 3978	daecr@dae.gov.in	
Alt CMG-DAE-ECR	022-2599 1080 022-2556 3350	022-2599 1070	vsbecr@npcil.co.in	
NREMC-AERB	022-2557 2993	022-2551 1212 9757050064 /65	nremc@aerb.gov.in	
RERD, DAE	022-2550 5313	022-2559 3717	rerd@barc.gov.in	
Director(O), NPCIL	022-2599 3318	022-2599 3315/16 022-2555 6572	do@npcil.co.in	
Technical Support Centre, VSB, NPCIL	022-2550 0222	022-2599 1999 022-2599 2999 2599 2214/05/06	copis@npcil.co.in	
OIC, ESL	05734-222119	05734-222119	ypgautam@npcil.co.in	

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024

(Conducted at NAPS on 21st September 2024)

Annexure of PAR- in scenario of measured radiological conditions

Protective Actions to be implemented / continued to be implemented based on Radiological Measurements

(This is an Exercise only)

Village(s) / Areas Affected: RATUKANAGLA, MAHARAJPUR, GOKULPUR, RAMBAS, GANGAGADH.

Protective Action	Action Required (Yes/No)	Time period for completing protective action (as applicable)
Implement Access control in affected area	YES	As early as possible
Sheltering	YES	As early as possible
Iodine Thyroid Blocking (ITB) distribution	YES	ALREADY COVERED (if remaining to be done/toward)
Prevent Consumption of open food and water	YES	As early as possible.
Evacuation	NOT REQUIRED	

(If radiological survey of multiple villages/area is done, the contents of the table can be repeated for each village/area)

If Evacuation is recommended, the route to be taken to avoid Radioactive Plume: _____

ADDITIONAL RECOMMENDATIONS:

- ✓ Public to be instructed for breathing air filtered through wet folded handkerchiefs or towels
- ✓ Washing the body and changing clothing as soon as possible after significant exposure to a radioactive plume of any composition.
- ✓ Keep all sources of food and drinking water covered and Avoid consumption of open food and water.
- ✓ Restrict consumption and distribution of local produce (eg. crops, leafy vegetables, fruits etc.), wild-grown products, milk from grazing animals and rainwater. If the restricted food is essential provide alternate supply of uncontaminated food.
- ✓ Cattle to be prevented from grazing outside and be given stored (covered) feed.
- ✓ Advice people/fisherman from venturing to ~~Sea~~/ River/Lake till further notice and warn people/fisherman already at Sea/ River/Lake and direct them to return to safer locations. (Strike out if not applicable)
- ✓ Any additional recommendations may be included.

Food and local supply should be stopped immediately, and supply should be brought from outside the affected areas/villages.

[Signature]
21/09/2024
Protective Action

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Request of Change Over to Intermediate Phase:

Appendix-7(A)

Request of Change over to Intermediate Phase (EXERCISE)

<div style="display: inline-block; text-align: center; width: 60%;"> <p>न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड Nuclear Power Corporation of India Limited (भारत सरकारका उद्यम A Govt. of India Enterprise) नरौरा परमाणु विद्युत केंद्र Narora Atomic Power Station</p> </div>				
E-mail / Fax Message				Date: <u>21/09/2024</u>
FROM	FOR	FAX NO	PHONE NO	E-MAIL
Site Emergency Director (SED), NAPS SITE Fax No: 05734-222112 Phone No: 05734-222103 e-mail: napsecr@npcil.co.in	1. CMG-DAE-ECR	022-2283 0441	022-2202 3978	daeecr@dae.gov.in
	RPT			
	1. NREMC-AERB	022-2557 2993	022-2551 1212 9757050064 /65	nremc@aerb.gov.in
	2. RERD, DAE	022-2550 5313	022-2559 3717	rerd@parc.gov.in
	3. Director(O), NPCIL	022-2599 3318	022-2599 3315/16 022-2555 6572	do@npcil.co.in
	4. Technical Support Centre, VSB, NPCIL	022-2550 0222	022-2599 1999 022-2599 2999 2599 2214/05/06	copis@npcil.co.in
	5. OIC, ESL	05734-222119	05734-222119	ypgautam@npcil.co.in
<u>THIS IS AN EXERCISE ONLY</u>				
THIS IS TO NOTIFY THAT PLANT CONDITIONS AT NAPS-UNIT <u>1</u> WHICH HAD LED TO DECLARATION OF OFF-SITE EMERGENCY AT NAPS SITE IS UNDER CONTROL AND THE RELEASES FROM THE AFFECTED UNIT ARE INSIGNIFICANT. THE OFF-SITE EMERGENCY CONDITIONS MAY NOW BE CONSIDERED AS INTERMEDIATE PHASE. Date (simulated): <u>25/09/2024</u> Time (simulated): <u>13:00 hrs.</u> CMG IS REQUESTED TO GIVE ACCEPTANCE FOR TRANSITION OF EMERGENCY FROM EARLY PHASE TO THE INTERMEDIATE PHASE. Regards (.)				
<div style="text-align: right;"> <u>25/09/2024</u> (SITE EMERGENCY DIRECTOR) </div>				
Message Conveyed by (Name & Signature) <u>Narain Chandra Sinha</u> at <u>13:00</u> Hrs.				
Acknowledgement:	Message Conveyed		Acknowledgement Received	
	Date:	Time:	Date:	Time:
CMG-DAE-ECR	21-09-24	13:00	21-09-24	13:02 hrs
NREMC, AERB	21-09-24	13:00	21-09-24	13:08 hrs
TSC, VSB, NPCIL	21-09-24	13:00	21-09-24	13:11 hrs

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Acceptance of Change Over to Intermediate Phase:

Appendix-8A:

Acceptance for change over from Early Phase to Intermediate Phase (EXERCISE)

(Letter Head of CMG-DAE-ECR)				
E-mail / Fax Message				Date: 21.09.24
FROM	FOR	FAX NO	PHONE NO	E-MAIL
CMG-DAE Fax No: 022-22830441 cmgdae@dae.gov.in	1. SED, NAPS Site	05734-222112	05734-222103	napsecr@npcil.co.in
	RPT			
	1. NREMC-AERB	022-2557 2993	022-2551 1212 9757050064 /65	nremc@aerb.gov.in
	2. RERD, DAE	022-2550 5313	022-2559 3717	rerd@barc.gov.in
	3. Director(O), NPCIL	022-2599 3318	022-2599 3315/16 022-2555 6572	do@npcil.co.in
	4. Technical Support Centre, VSB, NPCIL	022-2550 0222	022-2599 1999 022-2599 2999 2599 2214/05/06	copis@npcil.co.in

THIS IS AN EXERCISE ONLY

THIS IS TO NOTIFY THAT

BASED ON THE REVIEW OF THE REPORTED PLANT STATUS AND MITIGATORY MEASURES IN PLACE AT THE AFFECTED UNIT, NO FURTHER MAJOR RELEASE IS EXPECTED FROM THE AFFECTED UNIT.

HENCE THE REQUEST FOR CHANGE OVER FROM EARLY PHASE TO INTERMEDIATE PHASE RECEIVED FROM SED, NAPS SITE IS ACCEPTED AND THE OFF SITE EMERGENCY CONDITIONS WILL NOW BE CONSIDERED AS INTERMEDIATE PHASE.

Date (simulated): 25/9/2024 Time (simulated): 1305h

Regards.


CHAIRMAN
 (Crisis Management Group, DAE)

Message Conveyed by (Name & Signature) DAE-ECR at 1305 Hrs.



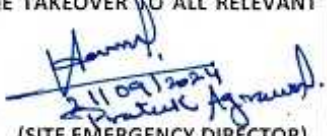
Acknowledgement:	Message Conveyed		Acknowledgement Received	
	Date:	Time:	Date:	Time:
SED, NAPS Site				
RERD-DAE				
NREMC, AERB				
TSC, VSB, NPCIL				

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Intimation of Change Over to Intermediate Phase:

Appendix-9(A)

Intimation of Change over to Intermediate Phase (EXERCISE)

	न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड Nuclear Power Corporation of India Limited (भारत सरकार का उद्यम A Govt. of India Enterprise) नरौरा परमाणु विद्युत केंद्र Narora Atomic Power Station				
	E-mail / Fax Message				
			Date: <u>21/09/2024</u>		
Site Emergency Director (SED), NAPS SITE Fax No: 05734-222112 Phone No: 05734-222103 e-mail: napsecr@npcil.co.in	FROM	FOR	FAX NO	PHONE NO	E-MAIL
		1. RERD, DAE	022-2550 5313	022-2559 3717	rerd@barc.gov.in
		RPT			
		2. DM: Bulandshahr	05732-280898	05732-280351	dmbul@nic.in
		3. CMG-DAE-ECR	022-2283 0441	022-2202 3978	daeecr@dae.gov.in
		3. Alt CMG-DAE-ECR	022-2599 1080 022-2556 3350	022-2599 1070	vsbecr@npcil.co.in
		4. NREMC-AERB	022-2557 2993	022-2551 1212 9757050064 /65	nremc@aerb.gov.in
		5. Director(O), NPCIL	022-2599 3318	022-2599 3315/16 022-2555 6572	do@npcil.co.in
	6. Technical Support Centre, VSB, NPCIL	022-2550 0222	022-2599 1999 022-2599 2999 2599 2214/05/06	copis@npcil.co.in	
	7. OIC, ESL	05734-222119	05734-222119	ypgautam@npcil.co.in	
<u>THIS IS AN EXERCISE ONLY</u>					
THIS IS TO NOTIFY THAT					
PLANT CONDITIONS AT NAPS UNIT <u>1</u> WHICH HAD LED TO DECLARATION OF OFF SITE EMERGENCY AT NARORA SITE IS UNDER CONTROL AND THE RELEASES FROM THE AFFECTED UNIT ARE INSIGNIFICANT. THE OFF SITE EMERGENCY CONDITION HAS TRANSITIONED OVER TO INTERMEDIATE PHASE.					
Date (simulated): <u>25/09/2024 to 26/09/2024</u> Time (simulated): <u>20:00 (25/9/2024) - 12:00 (26/09/2024)</u>					
RERD IS INFORMED TO TAKE OVER FOR FURTHER TECHNICAL GUIDANCE ON PROTECTIVE ACTION REQUIREMENT IN THE AFFECTED SECTOR TO INCIDENT COMMANDER AND COMMUNICATE THE TAKEOVER TO ALL RELEVANT AGENCIES.					
Regards (.)					
<div style="text-align: right;">  (SITE EMERGENCY DIRECTOR) </div>					
Message Conveyed by (Name & Signature) <u>AN-K. Sinha</u> at <u>13:27</u> Hrs.					
Acknowledgement:	Message Conveyed		Acknowledgement Received		
	Date:	Time:	Date:	Time:	
	21.9.24	13:33	21.9.24	13:46 hrs	
	21.9.24	13:33	21.9.24	13:58 hrs	
	21.9.24	13:33	21.9.24	13:58 hrs	
	21.9.24	13:33	21.9.24	13:46 hrs	
	21.9.24	13:33	21.9.24	13:38 hrs	
	21.9.24	13:33	21.9.24	13:38 hrs	

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Acknowledgement from RERD for Taking Over Charge of RERD:

<i>Off-Site Emergency Preparedness and Response Plan - NAPS</i>				
Appendix-10A:				
Acknowledgement message from RERD-DAE for taking over charge (EXERCISE)				
Letter Head of RERD, DAE				
E-mail / Fax Message				Date: <u>21.09.2024</u>
FROM	FOR	FAX NO	PHONE NO	E-MAIL
Radiation Emergency Response Director CMG-DAE Fax No: 022-25505313 Phone No: 022-25593717 e-mail: rerd@barc.gov.in	1. SED, NAPS	05734-222112	05734-222103	napsecr@npcil.co.in
	2. DM, Bulandshahr	05732-280898	05732-280351	dmbul@nic.in
	3. CMG-DAE-ECR	022-2283 0441	022-2202 3978	daeecr@dae.gov.in
	RPT			
	1. NREMC-AERB	022-2557 2993	022-2551 1212 9757050064 /65	nremc@aerb.gov.in
	2. Director(O), NPCIL	022-2599 3318	022-2599 3315/16 022-2555 6572	do@npcil.co.in
	3. Technical Support Centre, VSB, NPCIL	022-2550 0222	022-2599 1999 022-2599 2999 2599 2214/05/06	copis@npcil.co.in
4. OIC, ESL	05734-222119	05734-222119	ypgautam@npcil.co.in	
THIS IS AN EXERCISE ONLY				
THIS IS TO INFORM THAT ON RECEIPT OF COMMUNICATION FROM SED, NAPS SITE ABOUT TRANSITION TO INTERMEDIATE PHASE OF THE OFF-SITE EMERGENCY AT NAPS SITE, I HAVE TAKEN OVER THE RESPONSIBILITY OF RERD TO PROVIDE TECHNICAL GUIDANCE ON PROTECTIVE ACTION REQUIREMENT IN THE AFFECTED SECTOR TO INCIDENT COMMANDER WITH INFORMATION TO CMG-DAE.				
Date (simulated): <u>26.09.2024</u> Time (simulated): <u>1210h</u>				
FURTHER COMMUNICATION ON PROTECTIVE ACTIONS TO INCIDENT COMMANDER WILL BE CARRIED OUT FROM OFFICE OF THE RERD-CMG.				
Regards (.) 				
(RADIATION EMERGENCY RESPONSE DIRECTOR) CMG, DAE				
Message Conveyed by (Name & Signature) <u>Officer RERD</u> at <u>1342</u> Hrs.				
Acknowledgement:	Message Conveyed		Acknowledgement Received	
	Date:	Time:	Date:	Time:
SED, NAPS				
DM Bulandshahr				
CMG-DAE-ECR				
NREMC, AERB				
Alt. CMG-DAE-ECR				

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Protective Action Recommendation-1 from RERD:

(12)
PROTECTIVE ACTION RECOMMENDATION (PAR)
(For use by RERD in Intermediate Phase)
(EXERCISE)
FAX /E-MAIL MESSAGE
(Letter Head of Facility)

DATE: 21/09/2024
TIME: 14:06

From:	For	FAX No	Phone No	e-mail id
Radiation Emergency Response Director CMG-DAE (FAX No.022-25505313 / Phone No: 022-25593717 / email: rerd@barc.gov.in)	RO/IC (DM, Bulandshahr)	05732-280898	05732-280351	dmbul@nic.in
	RPT			
	CMG-DAE-ECR	022-22830441	022-22023978	dasecr@dae.gov.in
	Alt CMG-DAE-	022-25991080 022-25563350	022-25991070	vsbecr@npcil.co.in
	SED, NAPS Site	05734-222112	05734-222103	sdnaps@npcil.co.in, napsecr@npcil.co.in narora12.npcil@gmail.com
	NREMC, AERB	022-25572953	022-2551 1212 9757050064 /65 /67*	nremc@aerb.gov.in
	CMD, NPCIL	022-2555 7278 022-2218 7006	022-2556 5176 022-2218 4456	cmd@npcil.co.in
	Director (O), NPCIL	022-25991258	022-25993315/16 022-25556572	do@npcil.co.in
	Technical Support Centre (TSC) VSB, NPCIL	022-25500222	022-25992999 022-25992214/05/06	
	OIC, ESL, NAPS Site	05734-222119	05734-222119	ypgautam@npcil.co.in

THIS IS AN EXERCISE ONLY

Protective Action Recommendation (PAR) No: 1 Date: 27/09/2024 Time: 12:30 hrs

Actions for Maharajpur and Retuka Nagla in Sector H:

- Temporary relocation of residents in these villages to designated locations beyond 15 km, as identified by district authority, to be planned and carried out.
- Restriction on food, milk and drinking water to be continued and alternate arrangements for food, milk and drinking supplies must be arranged.
- Water consumption from Ganges river and canal to be restricted up to 5 km.
- Health screening in radiological aspects of affected people in these sectors and medical follow up.

Actions for Gokulpur Banger, Rambas and Gangagarh in adjacent Sectors:

- Restriction on food, milk and drinking water to be continued and alternate arrangements for food, milk and drinking supplies must be arranged.
- The earlier protective actions of sheltering may be continued in these sectors, until further notification.
- Water consumption from Ganges river and canal to be restricted up to 5 km.

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

RECOMMENDATIONS: (as above)


for **RADIATION EMERGENCY RESPONSE DIRECTOR**

Message Conveyed by (Name & Signature) Dr. D K Aswal (RERD) at 14:06 Hrs.

	Message Conveyed		Acknowledgement Received	
	Date:	Time:	Date:	Time:
RO/IC, DM Bulandshahr	Date:	Time:	Date:	Time:
NREMC, AERB	Date:	Time:	Date:	Time:
CMG-DAE-ECR	Date:	Time:	Date:	Time:
Alternate CMG-DAE-ECR	Date:	Time:	Date:	Time:
SED	Date:	Time:	Date:	Time:
TSC, VSB, NPIL	Date:	Time:	Date:	Time:

Annexure - 1

PAR No. 01

Village wise Protective Actions to be implemented

Sr. No.	Village	Max. Projected Effective Dose (mSv)	Max. Projected Thyroid Dose (mSv)	Time for implementing Protective actions in Hours		
				ITB	Sheltering	Evacuation
1	GANGABAS KHADAR (Dist: BULANDSHAHR)	1580	50100	1	1	1
2	HAKIMPUR KHADAR (Dist: BULANDSHAHR)	1580	50100	1	1	1
3	RAMGHAT-BANGAR (Dist: BULANDSHAHR)	70.39999999999999	2510	1	2	
4	BADIPUR (Dist: BULANDSHAHR)	70.39999999999999	2510	1	1	
5	MAHARAJPUR (Dist: BULANDSHAHR)	50.1	1580	1	2	
6	GANGAGARH (Dist: BULANDSHAHR)	2.5100000000000002	79.39999999999999	2		

Note: Restriction on consumption of Open Food, water and milk from Local Grazing animals shall also be done for all the villages as early as possible. Data in table has been generated from DSS and has been verified.

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Protective Action Recommendation-2 from RERD:

(12)				
PROTECTIVE ACTION RECOMMENDATION (PAR)				
(For use by RERD in Intermediate Phase)				
(EXERCISE)				
FAX/E-MAIL MESSAGE				
(Letter Head of Facility)				
				DATE: 21/09/2024
				TIME: 14:47
From:	For	FAX No	Phone No	e-mail id
Radiation Emergency Response Director CMG-DAE (FAX No 022-25505313 / Phone No: 022-25593717 / e-mail: rerd@barc.gov.in)	RO/IC (DM, Bulandshahr)	05732-280898	05732-280351	dmbsl@nic.in
	RPT			
	CMG-DAE-ECR	022-22830441	022-22023978	caeecr@dae.gov.in
	Alt CMG-DAE-	022-25991080 022-25563350	022-25991070	vshecr@npcil.co.in
	SED, NAPS Site	05734-222112	05734-222103	sdnaps@npcil.co.in, napsccr@npcil.co.in narora12.npcil@gmail.com
	NREMC, AERB	022-25572993	022-2551 1212 5757050064 /65 /67*	nremc@acrb.gov.in
	CMD, NPCIL	022-2555 7278 022-2218 2006	022-2556 5176 022-2218 4456	cmd@npcil.co.in
	Director (O), NPCIL	022-25991258	022-25993315/16 022-25556572	do@npcil.co.in
	Technical Support Centre (TSC) VSB, NPCIL	25500222	022-25992999 022-25992214/05/06	
	OIC, ESL, NAPS Site	05734-222119	05734-222119	ypgautam@npcil.co.in

<u>THIS IS AN EXERCISE ONLY</u>		
Protective Action Recommendation (PAR) No: 2	Date: 29/09/2024	Time: 09:00 hrs
<p>Actions for Maharajpur and Retuka Nagla in Sector H:</p> <ul style="list-style-type: none"> Temporary relocation of residents in these villages to designated locations beyond 15 km, as identified by district authority, to be continued. Relocated population may continue to remain at designated locations until further notification. Milk consumption to be stopped with alternate arrangement in place. Any milk produced in this affected village to be stopped from supply. Restriction on food and drinking water to be continued and alternate arrangements for food and drinking supplies must be arranged. Action on water consumption from Ganges river and canal to be restricted up to 5 km, to be continued. Health screening in radiological aspects of affected people in these sectors and medical follow up, to be continued. <p>Actions for Gokalpur Banger, Rambas and Gangagari in adjacent Sectors:</p>		

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

- Restriction on food, milk and drinking water to be continued and alternate arrangements for food, milk and drinking supplies must be arranged.
- Outdoor activities to be minimized, until further notification.
- Water consumption from Ganges river and canal to be restricted up to 5 km, to be continued.

RECOMMENDATIONS: (as above)

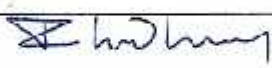

for **RADIATION EMERGENCY RESPONSE DIRECTOR**

Message Conveyed by (Name & Signature) Dr. D K Aswal (RERD) at 14:47 Hrs.

	Message Conveyed		Acknowledgement Received	
RO/IC, DM Bulandshahr	Date:	Time:	Date:	Time:
NREMC, AERB	Date:	Time:	Date:	Time:
CMG-DAE-ECR	Date:	Time:	Date:	Time:
Alternate CMG-DAE-ECR	Date:	Time:	Date:	Time:
SED	Date:	Time:	Date:	Time:
TSC, VSB, NPIL	Date:	Time:	Date:	Time:

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Protective Action Recommendation-3 from RERD:

(12) PROTECTIVE ACTION RECOMMENDATION (PAR) (For use by RERD in Intermediate Phase) (EXERCISE) FAX /E-MAIL MESSAGE (Letter Head of Facility)				
DATE: 21/09/2024 TIME: 15:05				
From:	For	FAX No	Phone No	e-mail id
Radiation Emergency Response Director CMG-DAE (FAX No 022-25505313 / Phone No: 022-25593717 / email: rerd@barc.gov.in)	RO/IC (DM, Bulandshahr)	05732-280898	05732-280351	dmrbal@nic.in
	RPT			
	CMG-DAE-ECR	022-22830441	022-22023978	daeecr@dae.gov.in
	Alt CMG-DAE-ECR	022-25991080 (022-25563350)	022-25991070	vsbecr@npcil.co.in
	SED, NAPS Site	05734-222112	05734-222103	sdnaps@npcil.co.in, napsccr@npcil.co.in narora12npcil@gmail.com
	NREMC, AERB	022-25572993	022-25511212 9757050064/65 /67*	nremc@ aerb.gov.in
	CMD, NPCIL	022-25557278 022-22182006	022-25565176 022-22184456	cmd@npcil.co.in
	Director (O), NPCIL	022-25991258	022-25993315/16 022-25556572	do@npcil.co.in
	Technical Support Centre (TSC) VSB, NPCIL	022-2550222	022-25991999 022-25992999 022-25992214/05/05	cos.s@npcil.co.in
	O/C, ESL, NAPS Site	05734-222119	05734-222119	ypgautam@npcil.co.in
<u>THIS IS AN EXERCISE ONLY</u>				
Protective Action Recommendation (PAR) No: <u>3</u> Date: 11/10/2024 Time: 15:00 hrs				
Actions at Chirauli Taluka: <ul style="list-style-type: none"> Temporary relocation of residents in this village to designated locations beyond 15 km, as identified by district authority, to be planned and carried out. Restriction on food, milk and drinking water to be continued and alternate arrangements for food, milk and drinking supplies must be arranged. Action on water consumption from Ganges river and canal to be restricted up to 5 km, to be continued. 				
RECOMMENDATIONS: (as above)				
 for RADIATION EMERGENCY RESPONSE DIRECTOR				
Message Conveyed by (Name & Signature) Dr. D K Aswal (RERD) at 15:05 Hrs.				
	Message Conveyed		Acknowledgement Received	
RO/IC, DM Bulandshahr	Date:	Time:	Date:	Time:
NREMC, AERB	Date:	Time:	Date:	Time:
CMG-DAE-ECR	Date:	Time:	Date:	Time:
Alternate CMG-DAE-ECR	Date:	Time:	Date:	Time:
SED	Date:	Time:	Date:	Time:
TSC, VSB, NPCIL	Date:	Time:	Date:	Time:

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

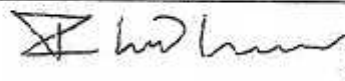
Protective Action Recommendation-4 from RERD:

(12)				
PROTECTIVE ACTION RECOMMENDATION (PAR)				
(For use by RERD in Intermediate Phase)				
(EXERCISE)				
FAX /E-MAIL MESSAGE				
(Letter Head of Facility)				
				DATE: 21/09/2024
				TIME: 15:18
From:	For	FAX No	Phone No	e-mail id
Radiation Emergency Response Director CMG-DAE (FAX No.022-25505313 / Phone No: 022-25593717 / email: rerd@barc.gov.in)	RO/IC (DM, Bulandshahr)	05732-280898	05732-280351	dmbul@nic.in
	RPT			
	CMG-DAE-ECR	022-22830441	022-22023978	daeacr@dae.gov.in
	Alt CMG-DAE-ECR	022-25991080 022-25563350	022-25991070	vsbacr@npcil.co.in
	SED, NAPS Site	05734-222112	05734-222103	sdnaps@npcil.co.in, napsecr@npcil.co.in narora.2.npcil@gmail.com
	NREMC, AERB	022-25572993	022-25511212 9757050064 /55 /67*	nremc@aerb.gov.in
	CMD, NPCIL	022-25557278 022-22182036	022-25565176 022-22184456	cmc@npcil.co.in
	Director (O), NPCIL	022-25991258	022-25993315/16 022-25556572	do@npcil.co.in
	Technical Support Centre (TSC) VSB, NPCIL	022-25500222	022-25991999 022-25992999 022-25992214/05/06	copis@npcil.co.in
	OIC, ESL, NAPS Site	05734-222119	05734-222119	ypgautam@npcil.co.in

<u>THIS IS AN EXERCISE ONLY</u>		
Protective Action Recommendation (PAR) No: 4	Date: 12/10/2024	Time: 15:30 hrs
Actions for Maharajpur and Retuka Nagla in Sector H: <ul style="list-style-type: none"> Temporary relocation of residents in these villages to designated locations beyond 15 km, as identified by district authority, to be continued. Relocated population may continue to remain at designated locations until further notification. Restriction on food and drinking water to be continued and alternate arrangements for food and drinking supplies must be arranged. Action on water consumption from Ganges river and canal to be restricted up to 5 km, to be continued. 		
Actions for Gokalpur Dargah, Rambas and Gangaghar in adjacent Sectors: <ul style="list-style-type: none"> Restriction on food, milk and drinking water to be continued and alternate arrangements for food, milk and drinking supplies must be arranged. Outdoor activities to be minimized, until further notification. Water consumption from Ganges river and canal to be restricted up to 5 km, to be continued. 		

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

RECOMMENDATIONS: (as above)



for

RADIATION EMERGENCY RESPONSE DIRECTOR

Message Conveyed by (Name & Signature) Dr. D K Aswal (RERD) at 15:18 Hrs.

	Message Conveyed		Acknowledgement Received	
RO/IC, DM Bulandshahr	Date:	Time:	Date:	Time:
NREMC, AERB	Date:	Time:	Date:	Time:
CMG-DAE-ECR	Date:	Time:	Date:	Time:
Alternate CMG-DAE-ECR	Date:	Time:	Date:	Time:
SED	Date:	Time:	Date:	Time:
TSC, VSB, NPIL	Date:	Time:	Date:	Time:

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Protective Action Recommendation-5 from RERD:

(12)
PROTECTIVE ACTION RECOMMENDATION (PAR)
(For use by RERD in Intermediate Phase)
(EXERCISE)
FAX /E-MAIL MESSAGE
(Letter Head of Facility)

DATE: 21/09/2024
TIME: 15:40

From:	For	FAX No	Phone No	e-mail id
Radiation Emergency Response Director CMG-DAE (FAX No.022-25505313 / Phone No: 022-25593717 / email: rerd@barc.gov.in)	RO/IC (DM, Bulandshahr)	05732-280898	05732-280351	cmtul@nic.in
	RPT			
	CMG-DAE-ECR	022-22830441	022-22023978	caecr@dae.gov.in
	Alt CMG-DAE-ECR	022-25991080 022-25563350	022-25991070	vsbecr@npcil.co.in
	SED, NAPS Site	05734-222112	05734-222103	sdnaps@npcil.co.in, napsecr@npcil.co.in narora12.npcil@gmail.com
	NREMC, AERB	022-25572993	022-25511212 9757050064 /65 /67*	nremc@aerb.gov.in
	CMD, NPCIL	022-25557278 022-22182006	022-25565176 022-22184456	cmd@npcil.co.in
	Director (O), NPCIL	022-25991258	022-25993315/16 022-25556572	do@npcil.co.in
	Technical Support Centre (TSC) VSB, NPCIL	022-25502222	022-25991999 022-25992999 022-25992214/05/06	copis@npcil.co.in
	OIC, ESL, NAPS Site	05734-222119	05734-222119	ypgautam@npcil.co.in

THIS IS AN EXERCISE ONLY

Protective Action Recommendation (PAR) No: 5 Date: 14/10/2024 Time: 08:30 hrs

As reported, the milk collection and distribution centres as well as vegetable markets, were found to be functioning in the affected areas. The following actions are recommended -

- To stop the functioning of the milk collection, distribution centres and the vegetable markets immediately, until further notice.
- To provide assistance to ESL teams in carrying out sampling of products from the above centres and markets.
- To identify persons in the affected areas who have received and consumed the potentially contaminated products from above centres and markets; and provide this information to ESLs for internal monitoring.

As reported on potentially contaminated responders, the following actions are recommended -

- To provide necessary logistics for facilitating decontamination of the responders;
- To provide necessary logistical support for safe management of radioactive waste, in coordination with ESL and responders.

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

RECOMMENDATIONS: (as above)


for **RADIATION EMERGENCY RESPONSE DIRECTOR**

Message Conveyed by (Name & Signature) Dr. D K Aswal (RERD) at 15:40 Hrs.

	Message Conveyed		Acknowledgement Received	
RO/IC, DM Bulandshahr	Date:	Time:	Date:	Time:
NREMC, AERB	Date:	Time:	Date:	Time:
CMG-DAE-ECR	Date:	Time:	Date:	Time:
Alternate CMG-DAE-ECR	Date:	Time:	Date:	Time:
SED	Date:	Time:	Date:	Time:
TSC, VSR, NPIL	Date:	Time:	Date:	Time:

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Protective Action Recommendation-6 from RERD:

(12)
PROTECTIVE ACTION RECOMMENDATION (PAR)
(For use by RERD in Intermediate Phase)
(EXERCISE)
FAX /E-MAIL MESSAGE
(Letter Head of Facility)

DATE: 21/09/2024
TIME: 16:05

From:	For	FAX No	Phone No	e-mail id
Radiation Emergency Response Director CMG-DAE (FAX No.022-25505313 / Phone No: 022-25593717 / email: rerd@nrc.gov.in)	RO/IC (DM, Bulandshahr)	05732-280898	05732-280351	dmbul@nic.in
	RPT			
	CMG-DAE-ECR	022-22830441	022-22023978	daccr@dae.gov.in
	Alt CMG-DAE-ECR	022-25991080 022-25563350	022-25991070	vshecr@npcil.co.in
	SED, NAPS Site	05734-222112	05734-222102	sdnaps@npcil.co.in, napssecr@npcil.co.in, narora12.npcil@gmail.com
	NREMC, AERB	022-25572993	022-25511212 9757050064/65/67	nremc@ aerb.gov.in
	CMD, NPCIL	022-25557278 022-22182006	022-25565176 022-22184456	cmd@npcil.co.in
	Director (O), NPCIL	022-25991258	022-25993315/16 022-25556572	do@npcil.co.in
	Technical Support Centre (TSC) VSB, NPCIL	022-25500222	022-25991999 022-25992999 022-25992214/05/06	ccpis@npcil.co.in
	OIC, ESL, NAPS Site	05734-222119	05734-222119	ypgautam@npcil.co.in

THIS IS AN EXERCISE ONLY

Protective Action Recommendation (PAR) No: 6 Date: 1/11/2024 Time: 10:30 hrs

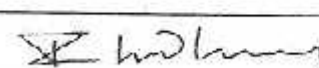
Actions for affected sector:

- Necessary decontamination activities may be initiated;
- Relocated population may be allowed to return to these villages, but their outdoor activities may be restricted until decontamination activities are completed
- Restriction on food, milk and drinking water (from wells) to be continued and alternate arrangements for food and drinking supplies must be arranged.
- Restriction on water consumption from Ganges river and canal can be lifted.

Actions for adjacent Sectors:

- Restriction on food, milk and drinking water (from wells) to be continued and alternate arrangements for food and drinking supplies must be arranged.
- Outdoor activities to be minimized, until further notification.
- Restriction on water consumption from Ganges river and canal can be lifted.

RECOMMENDATIONS (as above)


for RADIATION EMERGENCY RESPONSE DIRECTOR

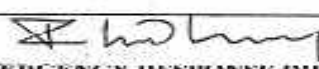
Message Conveyed by (Name & Signature) Dr. D K Aswal (RERD) at 16:05 hrs

	Message Conveyed		Acknowledgement Received	
RO/IC, DM Bulandshahr	Date:	Time:	Date:	Time:
NREMC, AERB	Date:	Time:	Date:	Time:
CMG-DAE-ECR	Date:	Time:	Date:	Time:
Alternate CMG-DAE-ECR	Date:	Time:	Date:	Time:
SED	Date:	Time:	Date:	Time:
TSC, VSB, NPIL	Date:	Time:	Date:	Time:

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Intimation from RERD to Incident Commander for Termination of OEE:

(12) PROTECTIVE ACTION RECOMMENDATION (PAR) (For use by RERD in Intermediate Phase) (EXERCISE) FAX /E-MAIL MESSAGE (Letter Head of Facility)				
				DATE: 21/09/2024 TIME: 16:18
From:	For	FAX No	Phone No	e-mail id
Radiation Emergency Response Director CMG-DAE (FAX No.022-25505313 / Phone No: 022-25593717 / email: rerd@barc.gov.in)	RO/IC (DM, Bulandshahr)	05732-280898	05732-280351	dmbruk@nic.in
	RPT			
	CMG-DAE-ECR	022-22830441	022-22023978	daeecr@dae.gov.in
	Alt CMG-DAE-ECK	022-25991080 022-25563350	022-25991070	vsbecr@npcil.co.in
	SED, NAPS Site	05734-222112	05734-222103	sdnaps@npcil.co.in napseecr@npcil.co.in
	NREMC, AERB	022-25572993	022-25511212 9757050064 /65 /67*	nremc@aerb.gov.in
	CMD, NPCIL	022-25557278 022-22182006	022-25565176 022-22184456	cmd@npcil.co.in
	Director (O), NPCIL	022-25991258	022-25993315/16 022-25556572	do@npcil.co.in
	Technical Support Centre (TSC) VSB, NPCIL	022-25500222	022-25991999 022-25992999 022-25992214/05/06	copis@npcil.co.in
	OIC, ESL, NAPS Site	05734-222119	05734-222119	ypgautam@npcil.co.in

<u>THIS IS AN EXERCISE ONLY</u>			
Date: 19/11/2024 Time: 09:10 hrs			
<ul style="list-style-type: none"> Necessary restriction on food, milk and drinking water in affected and adjacent areas may be lifted. District authorities are advised to coordinate with FSI and responders for necessary decontamination and safe management of radioactive wastes. Based on the analysis of environmental samples and ground measurements, the Emergency Exposure Situation has transitioned to an Existing Exposure Situation at all affected areas. 			
Based on the assessment and in conformity with regulatory guidelines, it is advised to terminate the off-site emergency at NAPS DAE Center which was declared at 01:00 hrs of 23/09/2024.			
 for RADIATION EMERGENCY RESPONSE DIRECTOR			
Message Conveyed by (Name & Signature) Dr. D K Aswal on 21/09/2024 at 16:18.			
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;"></td> <td style="width:50%; text-align: center;"> Message Conveyed Acknowledgement Received </td> </tr> </table>		Message Conveyed Acknowledgement Received
	Message Conveyed Acknowledgement Received		

RO/IC, DM Bulandshahr	Date:	Time:	Date:	Time:
NREMC, AERB	Date:	Time:	Date:	Time:
CMG-DAE-ECR	Date:	Time:	Date:	Time:
Alternate CMG-DAE-ECR	Date:	Time:	Date:	Time:
SED	Date:	Time:	Date:	Time:
TSC, VSB, NPIL	Date:	Time:	Date:	Time:

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024

(Conducted at NAPS on 21st September 2024)

OEE Termination Notification from DM, Bulandshahr:

[illegible]

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

OEE Termination Notification form SED, NAPS:

Appendix-12(A)



न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड
Nuclear Power Corporation of India Limited
(भारत सरकार का उद्यम A Govt. of India Enterprise)
नरोरा परमाणु विद्युत केंद्र Narora Atomic Power Station



**Message from Site Emergency Director to DAE Agencies and AERB on
Termination of Off-Site Emergency (EXERCISE)**

21/09/2024

e-MAIL/FAX MESSAGE

Date: 16:46

Time:

From	For	FAX No	Phone No	e-mail id
Site Emergency Director (SED), NAPS SITE Fax No: 05734-222112 Phone No: 05734-222103 e-mail: napsec@npcil.co.in	NREMC- AERB	022-25572993	022-2551 1212 9757050064 /65 /67	nremc@aerb.gov.in
	CMG-DAE-ECR	022-22830441	022-22023978	daeecr@dae.gov.in
	Alt CMG-DAE-ECR	022-25991080 022-25563350	022-25991070	vsbecr@npcil.co.in
	RERD-DAE	022-25505313	022-25593717	rerd@barc.gov.in
	Director (O), NPCIL	022-25991258	022-25993315/16 022-25556572	do@npcil.co.in
	Technical Support Centre (TSC) VSB, NPCIL	022-25500222	022-25991999 022-25992999 022-25992214/05/06	copis@npcil.co.in

THIS IS AN EXERCISE ONLY

AS PER NOTIFICATION RECEIVED FROM INCIDENT COMMANDER (DM BULANDSHAHR) IT IS TO INFORM THAT OFF-SITE EMERGENCY IS TERMINATED AT 16:46 (TIME-simulated) OF 25/11/2024 (DATE-simulated) AT NAPS SITE.

(Signature)
21/09/2024
SITE EMERGENCY DIRECTOR

Message Conveyed by (Name & Signature) *(Signature)* 16:57 Hrs.

Acknowledgement:

	Message Conveyed	Acknowledgment Received
CMG-DAE-ECR	Date: 21.9.24 Time: 16:57	Date: 21.9.24 Time: 17:04 Hrs
Alt CMG-DAE-ECR	Date: 21.9.24 Time: 16:57	Date: 21.9.24 Time: 17:04 Hrs
NREMC-AERB	Date: 21.9.24 Time: 16:57	Date: 21.9.24 Time: 17:06 Hrs
TSC-NPCIL HQ	Date: 21.9.24 Time: 16:57	Date: 21.9.24 Time: 17:10 Hrs
RERD-DAE	Date: 21.9.24 Time: 16:57	

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Termination of Site Emergency from SED, NAPS:

Annexure – 13 (B)				
<div style="text-align: center;"> न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड Nuclear Power Corporation of India Limited (भारत सरकार का उद्यम A Govt. of India Enterprise) नरीरा परमाणु विद्युत केंद्र Narora Atomic Power Station </div>				
SITE EMERGENCY TERMINATION COMMUNICATION (EXERCISE) E-MAIL / FAX MESSAGE				
Date: <u>25/09/2024</u> Time: <u>17:00</u>				
From SITE EMERGENCY DIRECTOR (SED) (Station Director, NAPS) Fax No: 05734-222112 Phone No: 05734-222103 E-mail: napsecr@npcil.co.in	For Incident Commander (DM Bulandshahr) NREMC-AERB CMG-DAE-ECR Alt CMG-DAE-ECR Director(O), NPCIL Technical Support Centre, VSB, NPCIL OIC-ESL	FAX No 05732-280898 022-2557 2993 022-2283 0441 022-2599 1080 022-2551 5283 022-2599 3318 022-2550 0222 05734-222119	Phone No 05732-280351 022-2551 1212 9757050064 /65 022-2202 3978 022-2599 1070 022-2599 3315/ 16 022-2555 6572 022-2599 1999 022-2599 2999 022-2599 2214/ 05/06 05734-222119	e-mail id dmbul@nic.in nremc@aerb.gov.in daecr@dae.gov.in vsbecr@npcil.co.in do@npcil.co.in copis@npcil.co.in ypgautam@npcil.co.in
यह मात्र एक अभ्यास है THIS IS AN EXERCISE ONLY				
नरीरा परमाणु विद्युत केंद्र पर स्थल आपातकाल समाप्त होने की सूचना दी जाती है। This is to inform the termination of Site Emergency at NAPS Site.				
स्थल आपातकाल, जिसकी घोषणा नरीरा परमाणु विद्युतकेंद्र की इकाई <u>1</u> में आई. सी. कंडीशन <u>MO 2.5</u> के कारण हुई थी, वह <u>25/11/2024</u> (दिन/माह/वर्ष) के बजे (समय) समाप्त की जाती है।				
Site Emergency declared due to (Initiating condition <u>MO : 2.5</u>) at NAPS Unit <u>1</u> has been terminated at <u>17:00</u> hrs. on <u>25/11/2024</u> (DD/MM/YYYY)				
कृपया सभी सम्बंधित अधिकारियों को सूचित करें और पावती प्राप्ति की सूचना दें। Please inform the concerned officials and acknowledge.				
<div style="text-align: right;"> <u>25/09/2024</u> स्थल आपातकाल निदेशक Site Emergency Director </div>				
Message Conveyed by (Name & Signature): <u>Narinder Singh</u> at <u>17:08</u> Hrs.				
	Message Conveyed		Acknowledgement Received	
Incident Commander (DM, Bulandshahr)	Date: <u>21-9-24</u> Time: <u>17:08</u>	Date: <u>21-9-24</u> Time:		
NREMC- AERB	Date: <u>21-9-24</u> Time: <u>17:08</u>	Date: <u>21-9-24</u> Time: <u>17:0945</u>		
CMG-DAE-ECR	Date: <u>21-9-24</u> Time: <u>17:08</u>	Date: <u>21-9-24</u> Time: <u>17:1045</u>		
Alt CMG-DAE-ECR	Date: <u>21-9-24</u> Time: <u>17:08</u>	Date: <u>21-9-24</u> Time: <u>17:1045</u>		
TSC-NPCIL-HQ	Date: <u>21-9-24</u> Time: <u>17:08</u>	Date: <u>21-9-24</u> Time: <u>17:1045</u>		
Director (O), NPCIL	Date: <u>21-9-24</u> Time: <u>17:08</u>			
OIC-ESL	Date: <u>21-9-24</u> Time: <u>17:08</u>			

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Termination of Plant Emergency from PED, NAPS:

Annexure - 14 (B)



न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड
Nuclear Power Corporation of India Limited
(भारत सरकार का उद्यम A Govt. of India Enterprise)
नरीरा परमाणु विद्युत केंद्र Narora Atomic Power Station



PLANT EMERGENCY TERMINATION COMMUNICATION (EXERCISE)
E-MAIL / FAX MESSAGE

Date 21/09/2024 Time: 17:10

From	For	FAX No	Phone No	e-mail id
PLANT EMERGENCY DIRECTOR Fax No: 05734- 222112 Phone No: 05734 - 222103 E-mail: napsecr@npcil.co.in	NREMC-AERB	022-2557 2993	022-2551 1212 9757050064 /65/67	nremc@aerb.gov.in
	CMG-DAE-ECR	022-2283 0441	022-2202 3978 9969201364	daeecr@dae.gov.in
	Alt CMG-DAE-ECR	022-2599 1080 022-2551 5283	022-2599 1070 022-2599 1071	vsbecr@npcil.co.in
	Director(O), NPCIL	022-2599 3318	022-2599 3315/ 16 022-2555 6572	do@npcil.co.in
	Technical Support Centre, VSB, NPCIL	022-2550 0222	022-2599 1999 022-2599 2999 022-2599 2214/ 05/06	copis@npcil.co.in
	OIC-ESL	05734-222119	05734-222119	ypgautam@npcil.co.in

यह मात्र एक अभ्यास है THIS IS AN EXERCISE ONLY

आपात स्थिति, जिसके कारण एनएपीएस की ईकाई-1/2 में संयंत्र आपात स्थिति घोषित की गई थी, नियंत्रित कर ली गई है।
“Emergency conditions which had led to declaration of Plant Emergency at NAPS in Unit 1 is brought under control.

अतः एनएपीएस में दिनांक 24/09/2024 के 17:10 बजे संयंत्र आपात स्थिति समाप्त होने की सूचना दी जाती है।
This is to inform Termination of Plant Emergency at NAPS at 17:10 hrs of 21/09/2024 (Date)”.
घटना की टाइम लाइन Time line of event: 25/11/2024 ; 17:10 hrs

कृपया सभी सम्बंधित अधिकारियों को सूचित करें और और पावती प्राप्त की सूचना दें
Please inform the officials concerned and acknowledge.



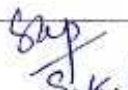
(नाम व हस्ताक्षर Name & Signature)
संयंत्र आपातकाल निदेशक Plant Emergency Director

Message Conveyed by (Name & Signature): Nandu Singh at 17:22 Hrs.

	Message Conveyed	Acknowledgement Received
NREMC, AERB	Date: <u>21-9-24</u> Time: <u>17:22</u>	Date: Time: <u>17:22 hrs</u>
CMG-DAE-ECR	Date: <u>21-9-24</u> Time: <u>17:22</u>	Date: Time: <u>17:24 hrs</u>
Alternate CMG-DAE-ECR	Date: <u>21-9-24</u> Time: <u>17:22</u>	Date: Time: <u>17:31 hrs</u>
TSC-NPCIL-HQ	Date: <u>21-9-24</u> Time: <u>17:22</u>	Date: Time: <u>17:24 hrs</u>
Director (O), NPCIL	Date: <u>21-9-24</u> Time: <u>17:22</u>	
OIC-ESL	Date: <u>21-9-24</u> Time: <u>17:22</u>	

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Termination of Emergency Alert by SCE, NAPS:

Annexure – 15(A)				
	न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड Nuclear Power Corporation of India Limited (भारत सरकार का उद्यम A Govt. of India Enterprise) नरौरा परमाणु विद्युत केंद्र Narora Atomic Power Station			
EMERGENCY ALERT TERMINATION COMMUNICATION (EXERCISE) E-MAIL / FAX MESSAGE				
Date <u>21/09/2024</u> Time: <u>17:15</u>				
From SHIFT CHARGE ENGINEER (Fax No: 05734-222189) E-mail: napsecr@npcil.co.in	For NREMC-AERB Director(O), NPCIL Technical Support Centre, VSB, NPCIL	FAX No 022-2557 2993 022-2599 3318 022-2550 0222	Phone No 022-2551 1212 9757050064 /65 022-2599 3315/ 16 022-2555 6572 022-2599 1999 022-2599 2999 022-2599 2214/ 05/06	e-mail id nremc@aerb.gov.in do@npcil.co.in copis@npcil.co.in
यह मात्र एक अभ्यास है THIS IS AN EXERCISE ONLY				
एनएपीएस की ईकाई-1/2 में दिनांक <u>21/09/2024</u> के <u>17:15</u> बजे आपात सचेत स्थिति समाप्त होने की सूचना दी जाती है। "This is to inform Termination of <u>Emergency Alert</u> at NAPS in Unit- <u>1</u> at <u>17:15</u> hrs. of <u>21/09/2024</u> (date)".				
घटना की टाइम लाईन Time line of event: <u>25/11/2024 ; 17:15 hrs</u> कृपया सभी सम्बंधित अधिकारियों को सूचित करें और पावती प्राप्ति की सूचना दें। Please inform the officials concerned and acknowledge.				
<div style="text-align: right;">  <u>S.K. Paramanik</u> (Name & Signature) SHIFT CHARGE ENGINEER </div>				
Message Conveyed by (Name & Signature): <u>Narinder (N.K. Sinha)</u> at <u>17:29</u> Hrs.				
	Message Conveyed		Acknowledgement Received	
NREMC, AERB	Date: <u>21/9/24</u> Time: <u>17:29</u>	Date: <u>21-9-24</u> Time: <u>17:29 hrs</u>	Date: <u>21-9-24</u> Time: <u>17:31 hrs</u>	Date: <u>21-9-24</u> Time: <u>17:31 hrs</u>
TSC-NPCIL-HQ	Date: <u>21-9-24</u> Time: <u>17:29</u>	Date: <u>21-9-24</u> Time: <u>17:29</u>	Date: <u>21-9-24</u> Time: <u>17:31 hrs</u>	Date: <u>21-9-24</u> Time: <u>17:31 hrs</u>
Director (O), NPCIL	Date: <u>21-9-24</u> Time: <u>17:29</u>	Date: <u>21-9-24</u> Time: <u>17:29</u>	Date: <u>21-9-24</u> Time: <u>17:31 hrs</u>	Date: <u>21-9-24</u> Time: <u>17:31 hrs</u>

Emergency Control Messages (Injects) of exercise:

Inject Time : 09:00 hrs	1.1
EXERCISE CONTROL MESSAGE	
Time line of the event	: 05:40 – 06:00 hrs (21 st September, 2024)
Issued to	: Control Engineer from controller
Caution	: This is an exercise only. DO NOT alter actual unit operation.
Message	: Plant/Site Status
Initial Status	
NAPS-1&2	Operating at 100% FP

Following conditions in NAPS-1:

- a. Neutron log rate very high > 13% per second (ANN-535)
- b. Neutron power very high > 118% F.P (ANN-536).
- c. Both PSS and SSS got actuated
- d. Pump room pressure very high (18 g/cm²) (WAN-507)
- e. Wide range accident area monitor (Pump Room QT-87 and FM vault QT-90/88) showing radiation field of 270 R/hr.
- f. RB Containment box-up logic initiated (ANN-88).
- g. Secondary Containment Recirculation and Purge system (SCRP) Fan-1 started on auto and SC pressure was maintained between -18 to -24mm WC.
- h. PHT pressure approaching injection pressure (WAN-61).
- i. ECCS got line up on Type-II injection.
- j. Following indications are observed:
 - 3335-TK-1 Level low & 3335 TK-2 Pressure Low (WAN-50)
 - Low pressure & conditioning signal for Light water accumulator actuation.
 - ECCS Rupture Disc ruptured/ 3335 TK-3 Level low (WAN-111).
 - 3335 TK-3 Level Low & 3335 TK-4 Pressure Low (WAN-68)

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Inject Time : 09.20 hrs

1.2

EXERCISE CONTROL MESSAGE

Time line of the event : 06:00 – 07:00 hrs (21st September, 2024)
Issued to : Control Engineer
Caution : **This is an exercise only. DO NOT alter actual unit operation.**

Plant Status	
NAPS-2	Operating at 100% FP

Following conditions in NAPS-1:

- a. ECCS Pump-1 and Pump-3 gets lined up.
- b. ECCS pump-1 gets tripped on electrical protection and showing zero current.
- c. ECCS pump-4 is under maintenance due to high vibration problem.
- d. ECCS pump-2 gets lined up. Core cooling being ensured by pump-2&3.
- e. Light water injection line flow (line 3335-10 flow) in 3335-FIA-98 in 6610-PL-5 in MCR and / or CRCS point AN-1224 indicating flow from ECCS.

Inject Time: ~~09:50~~ hrs
09:00 hrs

1.3

EXERCISE CONTROL MESSAGE

Time line of the event : 07:00 -08:00 hrs (21st September, 2024)
Issued to : Control Engineer
Caution : **This is an exercise only. DO NOT alter actual unit operation.**
Message : Plant Status Update.

Following Alarms/indications in NAPS-1:

- a. ECCS Pump-3 trips on electrical protection.
- b. Severe current hunting was observed in ECCS pump-2 and got tripped on overload protection.
- c. ECCS Re-circulation flow low (ANN-55) alarm appeared.
- d. Accident Radiation monitor is showing increasing radiation field (>2.1 Sv/h).

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Inject Time: 10:20 hrs
10:05 hrs

1.4

EXERCISE CONTROL MESSAGE

Time line of the event : 08:00 -11:00 hrs (21st September, 2024)

Issued to : Control Engineer

Caution : **This is an exercise only. DO NOT alter actual unit operation.**

Message : Plant Status Update.

Status	
NAPS-2	Unit under Shutdown and core cooling is maintained.

Following Alarms / indications in NAPS-1:

1. Calandria Isolation logic relay De-energised-(DS-2034) alarm appeared on ACRT.
2. Calandria gets boxed up and not getting reset.
3. Moderator flow through 3211-HX1 & 2 reduces to zero as seen on CRCS-59 & 60.
4. Moderator cover gas pressure observed in increasing trend.
5. Calandria level showing increasing trend in the recorder.
6. Sudden reduction in moderator cover gas pressure observed.
7. Calandria level observed in decreasing trend.
8. Wide range area radiation monitors showing high radiation field. (>10 Sv/h)
9. Containment pressure observed in increasing trend (0.3 kg/cm²).

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024

(Conducted at NAPS on 21st September 2024)

Inject Time: 10:40 hrs

1.5

EXERCISE CONTROL MESSAGE

Time line of the event : 11:00 hrs (21st September, 24) –03:00 hrs (23rd September, 24)

Issued to : Control Engineer

Caution : This is an exercise only. DO NOT alter actual unit operation.

Message : Plant Status Update

Status	
NAPS-2	Unit under Shutdown and core cooling is maintained.

Following Alarms/indications in NAPS -1

1. Water injection to Calandria through hook up point initiated and calandria level is increasing (SAG-CAL implemented).
2. Gross leak observed in Calandria hook up line flange.
3. Continuous decrease in Calandria level is observed.
4. Containment pressure increased to 0.6 kg/cm² (g).
5. Calandria vault cooling flow low alarm appears & operating Calandria vault cooling pump-1 OFF indication appears in PL-8.
6. Calandria vault pump-2 is under major maintenance.
7. Calandria vault expansion tank low level alarm on ACRT.
8. Water injection to Calandria vault initiated through hook up (SAG-CV initiated).
9. Containment pressure increased to 1.0 kg/cm² (g).
10. Sudden decrease in containment pressure is observed (CRCS-353) (01:00 hrs, 23rd September, 2024)
11. On field observation, hissing sound from Emergency Air Lock was observed.
12. ERMs are showing high radiation levels (> 50 micro-Sv/h).

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Inject Time: 11:40 hrs

1.6

EXERCISE CONTROL MESSAGE

Time line of the event: 03:00 hrs (23rd September, 24) to 14:00 hrs (23rd September, 24)

Issued to : Control Engineer

Caution : **This is an exercise only. DO NOT alter actual unit operation.**

Message : Plant Status Update

Status	
NAPS-2	Unit under Cold Shutdown and core cooling is maintained.

Following conditions in NAPS-1:

1. Cooling through Calandria Vault hookup continues.
2. Media persons assemble at Township gate for information about the events and rumors about Public concerns.
3. Containment pressure is decreasing at rapid rate.

Inject Time: 12:10

1.7 A

EXERCISE CONTROL MESSAGE

Time line of the event: 10:00 hrs (25th September, 2024)

Issue to : OIC ESL

The following Radiological conditions are noted:

Projected Thyroid dose to public in Nandpur Village indicate the requirement of administration of ITB tablets.

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Inject Time: 12:20 Hrs

12:35 Hrs

1.8

EXERCISE CONTROL MESSAGE

Time line of the event : 12:00 hrs (25th September, 24) to 20:00 hrs (25th September, 24)
Issued to : Control Engineer
Caution : **This is an exercise only. DO NOT alter actual unit operation.**
Message : Plant Status Update

Status	
NAPS-2	Unit under Cold Shutdown and core cooling is maintained.

Following conditions in NAPS-1:

1. Cooling through Calandria vault injection continues.
2. Identification & isolation of leaky path is completed. (13:00 hrs, 25th September, 2024)
3. Uncontrolled release of radioactivity to environment is arrested.
4. There is no possibility of re-criticality.
5. District Authority is asking for the information on status of plant for preparation of their Media briefing.

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Inject Time: 12:45 hrs

1.9

EXERCISE CONTROL MESSAGE

Time line of the event : 20:00 hrs (25th September, 2024) to 12:00 hrs (26th September 2024).
Issued to : Control Engineer from controller
Caution : This is an exercise only. DO NOT alter actual unit operation.
Message : Plant Status Update

Status	
NAPS-2	Unit under Cold Shutdown and core cooling is maintained.

Following conditions/indications/actions in NAPS- 1:

1. Fuel cooling through Calandria vault injection continues.
2. Containment pressure being monitored.
3. Radiation field around the reactor building in decreasing trend (150 μ Sv/h).
4. Radiological releases and containment conditions are being monitored.
5. The above conditions can be maintained for long-term including monitoring of critical parameter.
6. Release from the plant is now insignificant.

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Exercise Exercise Exercise

Inject : 2.1

Date: 27.09.2024

Time: 1200 Hrs

Affected Sector: __H (_____)

	Location (to be filled)	Gamma Radiation field at 1m above the ground level (micro-Sv/h)
Village(s) in affected Sector :		
Spot 1	Maharajpur near school	178
Spot 2	Maharajpur PSC office	176
Spot 3	Retuka Nagla spot A	175
Spot 4	Retuka Nagla spot B	182
Spot 5	Maharajpur point C	172
Village(s) in either side of affected Sector :		
Spot 1	Gokalpur Banger point A	48
Spot 2	Rambas spot B	48
Spot 3	Gokalpur khader	56
Spot 4	Gangagarh near school	55
Spot 5	Rambas spot A	62

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024

(Conducted at NAPS on 21st September 2024)

Exercise Exercise Exercise

Inject: 2.2

Date: 29.09.2024

Time: 0800 Hrs

Radiological conditions

Activity of I-131 and Cs-137 in food, milk and drinking water samples taken indicates the following activity conc.

Sample collected	Activity conc., in food samples (Bq/kg)	
	I-131	Cs-134
Village(s) in affected Sector : Maharajpur and Retuka Nagla		
Sample 1 { leafy vegetable}	750	305
Sample 2 { leafy vegetable}	1100	500
Sample 3 { milk}	1325	320
Sample 4 { Paddy crop}	550	190
Sample 5 { drinking water}	1150	170
Village(s) in either side of affected Sectors : Gokalpur Banger, Gokalpur khader		
Sample 1 { leafy vegetable}	650	180
Sample 2 { leafy vegetable}	600	140
Sample 3 { milk}	490	120
Sample 4 { Paddy crop}	330	160
Sample 5 { drinking water}	300	80

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024

(Conducted at NAPS on 21st September 2024)

Exercise Exercise Exercise

Inject : 2.3

Date: 11.10.2024

Time: 1420 Hrs

Affected Sector: __I__

	Location (to be filled)	Gamma Radiation field at 1m above the ground level (micro-Sv/h)
Village(s) in affected Sector : Chirauli Taluka		
Spot 1	Chirauli Taluka (Entrance)	75
Spot 2	Chirauli Taluka (outside primary school)	58
Spot 3	Chirauli Taluka (diversion point-A)	67
Spot 4	Chirauli Taluka (diversion point-B)	87
Spot 5	Chirauli Taluka (in front of village panchayat)	92

Exercise Exercise Exercise

Inject : 2.4

Date: 12.10.2024

Time: 1440 Hrs

Affected Sector: __H__

	Location (to be filled)	Gamma Radiation field at 1m above the ground level (micro-Sv/h)
Village(s) in affected Sector :		
Spot 1	Maharajpur point A	36
Spot 2	Maharajpur point B	22
Spot 3	Maharajpur point B	25
Spot 4	Retuka Nagla spot A	35
	Retuka Nagla spot B	28
Village(s) in either side of affected Sector :		
Spot 1	Gokalpur Banger	15
Spot 2	Rambas spot B	14
Spot 3	Gokalpur khader	22
Spot 4	Gangagarh near school	18
Spot 5	Rambas spot A	10

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024

(Conducted at NAPS on 21st September 2024)

Inject time: 15.00 hrs	2.5
Exercise Control Message	
Time line of Event	: 08:00 hrs (14 th October, 2024)
Issued to	: OIC-ESL
Message:	
<ul style="list-style-type: none">➤ Field Survey team (RER1) has reported that milk collection and distribution centres and weekly vegetable market are found functioning in the affected area.➤ Personnel contamination of responders indicated contamination on 10 persons. Decontamination of these identified responders and management of corresponding rad-waste generated to be done.	

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024

(Conducted at NAPS on 21st September 2024)

Inject Time: 15:30 hrs

2.6

Exercise Control Message

Time line of Event : 10:00 hrs (1st November, 2024)

Issued to : OIC- ESL

The following are the Radiological conditions.

- A. Dose rate of villages in Affected sector H : ~~3.40~~ micro Sv/h
- B. Activity Concentration of I-131 and Cs-137 in food, milk and drinking water samples taken indicate the following activity concentration

Samples Collected	Activity Concentration in food samples (Bq/kg)	
Village(s) in Affected Sector:	Maharajpur, Renuka angla	
	I-131	Cs-137
Sample-1 (Leafy Vegetable)	550	180
Sample-2 (Leafy Vegetable)	600	190
Sample-3 (Milk)	780	120
Sample-4 (Paddy Crops)	450	170
Sample-5 (Drinking Water from wells)	255	45
Village(s) in Adjacent Sector:	Gekolpur, Bengau, Gekulpur khandoo	
Sample-1 (Leafy Vegetable)	305	120
Sample-2 (Leafy Vegetable)	480	68
Sample-3 (Milk)	510	90
Sample-4 (Paddy Crops)	170	88
Sample-5 (Drinking Water from wells)	105	58

Inject Time: 15:45 hrs

2.7

Exercise Control Message

Time line of Event : 09:00 hrs (19th November, 2024)

Issued to : OIC- ESL

Message Residual Dose

Following the implementation of various protective measures towards protection of public, it is estimated that the residual dose to the public in the affected areas is likely to be 12 mSv/year

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Inset Time: 15:00 hrs

2.8

Exercise Control Message

Time line of Event : 10:00 hrs (28th November 2024)

Issued to : OIC- ESL

Message:

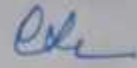

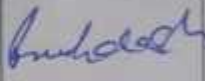
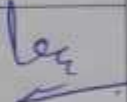

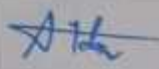




- Justified and optimized actions have been taken to meet the criteria established to enable the transition to an existing exposure and it has been verified that the assessed residual doses approach the lower bound of the reference level for an emergency exposure situation.
- Areas have been delineated that are not permitted to be inhabited and where it is not feasible to carry out social and economic activity. For these delineated areas, administrative and other provisions have been established to monitor compliance with any restrictions imposed.
- A mechanism and the means for continued communication and consultation with all interested parties, including local communities, have been put in place.
- Any change or transfer of authority and responsibilities from the emergency response organization to organizations responsible for the long term recovery operations has been completed.
- The sharing of any information and data that were gathered during the emergency exposure situation and that are relevant for long term planning has been organized among the relevant organizations and authorities.
- Development of a long term monitoring strategy in relation to residual contamination has been initiated.
- Administrative arrangements, legal provisions and regulatory provisions have been put in place for the management of the existing exposure situation.

GLIMPSES OF OFFSITE EMERGENCY EXERCISE



Pre-exercise briefing of District authorities at DM Office, Bulandshahr

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Training Programme for Off-site Mock Exercise on CBRN जिला आपदा प्रबंधन प्राधिकरण, बुलन्दशहर कार्यालय जिलाधिकारी, बुलन्दशहर					
Attendance List					
Sl. no	Name	Department Name	Address	Mobile no	Signature
	Abhishek K. Singh	ADMER) Bulandshahr	Collectorat Bulandshahr	9454419072	
	Umesh Chandra Prasadhi	Civil Defence	T.S.L. Comp. Narora	9917435621	
	Dr. Pushpendra Singh	Animal Husbandry	CVO Office Vikar Bhawan Bulandshahr	0630137263	
	Vikas Asthan	A.R.T.O. office/deptt.	ARTO Office Blsr.	0858246743	
	Gurjeet Kumar	Nagar Palika Bulandshahr	NPPDSR	95321358-04	
	Anuj Yadav	Labour Deptt. (Act. Director)	Bulandshahr	7754855949	
	Mukesh Baboo	DIOS office	DAV Tiraha under overbridge Bulandshahr	9412461985	
	Devendra Singh	Flotomcoma/ HomeExtrads	H&M Comdant	9673957771	
	Anuraj Singh	Triveni Engineering A leading Tech Karnataka	Sabitgarh Iconary	7524975131	
	Vikender Singh	Triveni Engg & Ind. Kt. Dushkalyan SPR.	SAT	9719534889	

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024

(Conducted at NAPS on 21st September 2024)

Training Programme for Off-site Mock Exercise on CBRN

जिला आपदा प्रबंधन प्राधिकरण, बुलन्दशहर

कार्यालय जिलाधिकारी, बुलन्दशहर

13/09/2024

Attendance List

Name	Department Name	Address	Mobile no	Signature
D. Vivekananda Desai	Higher Education Principal, DNO NSS	GDC Jalangiabadi	9639177677	
D. Ravikumar Yadav	Higher Education NSS	GDC Jalangiabadi	9458487352	
 Dr. Shashini	Labbasi DPL Bihar	EMHJ. Office	8006116975	
Jyeshthpur.	JPPCL	EDP Labbasi EDSA - Haridwar	9193302181	
Vijay pal Singh	UP Jal Nigam (Nagriya)	Man Sarovar Colony BSR	991740390	
Priyanka Sharma	Forest Dept	डी.डी.एम. ऑफिस, ए.डी.ए. न्यू, डी.डी.एम. ऑफिस	8630440377	
Lavika Kumar	Revenue Department N.T (Dibai)	Tahsil Dibai	94121224 76	
 Dr. Sushant	मंत्रालय (फिडल) ए.डी.ए.	मिडवॉरी	9454418730	
Hav Kulwinder Singh	41 UP Bn NCC BLR	41 UP Bn NCC BLR	98763 20125	
 Manoj Kumar	U.P.S.R.T.C	U.P.S.R.T.C BSR	9410097969	
DR. Ramesh	Health	CMO Office	800601304	

Participants in above exercise

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

**Pre-exercise briefing of Observers on 20th September 2024 at Guesthouse,
NAPS Township**



REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

View of Main Control Room (MCR) during Emergency Exercise



REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)



View of Main Control Room (MCR) during Emergency Exercise

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)



REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

View of PECC during Emergency Exercise



REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)



View of PECC during Emergency Exercise

REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024

(Conducted at NAPS on 21st September 2024)



REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

View of SECC during Emergency Exercise



REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Off-site Emergency Exercise Feedback Meeting
NAPS Plant site



District Magistrate office, Bulandshahr



REPORT OF ICCR - OFFSITE EMERGENCY EXERCISE-2024
(Conducted at NAPS on 21st September 2024)

Annexure-6

Draft Press Briefing by site: This press briefing is prepared only to check the capability of site to prepare the press briefing, to fulfil the objective of exercise. This press briefing **is not given** to media for publishing purpose.

प्रेस वार्ता


आज दिनांक 21.09.2024 को प्रातः 10.00 बजे नरोरा परमाणु विद्युत केंद्र की इकाई नं 1 में तकनीकी कारणों से आपात स्थिति उत्पन्न हो गई थी। इकाई को 11:00 बजे बंद कर दिया है।

समस्या के समाधान के लिये लगातार प्रयास किये गये परिणामस्वरूप आज दिनांक 21.09.2024 को 13:10 बजे रेडियोधर्मिता का रिसाव सामान्य एवम नियंत्रण में है तथा इकाई नं 1 से रेडियोधर्मिता का रिसाव नगण्य है।

ग्रामीणों के बचाव करने के लिये तत्काल एहतियाती सुरक्षात्मक कार्रवाई की जारी रहेगी। रेडियेशन की आपातस्थिति से आम जनमानस के बचाव हेतु सलाह दी जाती है कि वे धैर्य एवं संयम रखें, शांति बनाए रखें, अफवाहों पर ध्यान ना दें, घरों में रहें और समय समय पर प्रशासन द्वारा दी गयी सलाह का पालन करें।

किसी को घबराने की आवश्यकता नहीं है। जिला प्रशासन स्थिति से निपटने के लिये सक्षम है एवं जवाबी उपायों (Counter measures) से सुसज्जित है। स्थिति को नियंत्रण में करने का प्रयास किया जा रहा है।


21/09/2024.

Message sent by
email at 13:36 hrs.

(A.K. Sinha)

Media / Newspaper Coverage

Denik Jagran

नरौरा परमाणु ऊर्जा केंद्र पर रेडिएशन के रिसाव से बचाव का कराया अभ्यास

संवाद सूत्र, जागरण० नरौरा : नरौरा परमाणु ऊर्जा केंद्र में किसी भी संभावित रेडियोधर्मिता रिसाव संबंधी दुर्घटना से निपटने की तैयारियों को परखने के लिए आफ साइट आपातकालीन पूर्वाभ्यास किया गया। यह अभ्यास परमाणु केंद्र में प्रत्येक तीसरे वर्ष किया जाता है।

शनिवार को नरौरा परमाणु ऊर्जा केंद्र के नियंत्रण कक्ष से 9.45 मिनट पर साइट इमरजेंसी की सूचना जिला प्रशासन के आपदा नियंत्रण कक्ष को भेजी गई। इसके पश्चात स्वास्थ्य, आपूर्ति, होमगार्ड, जलापूर्ति, अग्निशमन आदि के जिला स्तरीय अधिकारियों ने जिला आपदा नियंत्रण कक्ष पहुंचकर अपनी रेस्पॉंस टीम को अलर्ट किया। नरौरा परमाणु ऊर्जा केंद्र के नियंत्रण कक्ष से 10.45 मिनट पर आफ साइट इमरजेंसी की घोषणा करते हुए सभी टीमों को संयंत्र के समीप के प्रभावित ग्राम गंगागढ़, महाराजपुर उर्फ रतुआनगला एवं रामबास एवं गोकुलपुर खादर की ओर निर्देशानुसार रवाना



नरौरा परमाणु ऊर्जा केंद्र में पूर्वाभ्यास में भाग लेते अधिकारी व कर्मचारी० सौ ऊर्जा

किया। जिलाधिकारी की अध्यक्षता में आपदा नियंत्रण कक्ष से प्राप्त निर्देशानुसार प्रभावित ग्रामों में बचाव कार्य का अभ्यास करते हुए नागरिकों एडीएम वित्त अभियेक कुमार की मौजूदगी में उपजिलाधिकारी डिव्वाई कमलेश कुमार गौयल, सीओ डिव्वाई शशांक सिंह लगातार मौजूद रहकर रेस्पॉंस टीमों को निर्देश देते रहे। लोगों को रेडिएशन के रिसाव के दौरान भोजन, पानी बचाव एवं अन्य आवश्यक सावधानी बरतने के बारे में बताया। शाम 4.45 पर आफ साइट इमरजेंसी की समाप्ति की घोषणा की

गई। जिसके पश्चात आब्जर्वर द्वारा सभी विभागों से फीडबैक प्राप्त किया गया। इस दौरान एनपीएस संयंत्र स्थल पर नियंत्रण कक्ष में केन्द्र निदेशक प्रतीक अग्रवाल एवं मुख्य अधीक्षक संजय कुमार कवरे अपने सभी वरिष्ठ अधीक्षक एवं अधिकारी गणों के साथ लगातार स्थिति पर नजर बनाए रखने के साथ ही जिला नियंत्रण कक्ष को संदेश एवं सूचना देते रहे। पूर्वाभ्यास में एडआरबी के आब्जर्वर, एनडीआरएफ, एसडीआरएफ, नागरिक सुरक्षा संगठन, पुलिस एवं एनपीसीआईएल के अधिकारी गणों ने भाग लिया।

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