# "BEST PRACTICE" RECOMMENDATIONS FOR COVID REPONSE AT NUCLEAR FACILITIES

**Transparency and Reporting**

- NRC must require that each reactor site and nuclear facility submit regular reports on COVID testing and infection rates.
- NRC must require licensees to submit the COVID-19 protocols and procedures, share them with state and local health agencies, and publish them online.
- NRC must post summary data for each reactor site on infection, quarantine, hospitalization, mortality, and positive test rates, in real time.
- Local and state governments and health departments must also be notified.
- Licensees must establish robust contact tracing for all employees and contractors. NRC must establish a central database to track employees and contractors who work at multiple reactor sites, and make the data available to contact tracers and state and local health agencies

**Maintenance Response:**

- In order to avoid incremental erosion of the nuclear industry's oft-touted boast of "defense in depth," and also to avoid the possibility of serious nuclear accident through neglect as has historically been demonstrated, inspections, maintenance and repair at reactors should not be skipped, deferred, or given exemptions. To paraphrase former NRC Region III inspector Ross Landsman, "This is the kind of thinking that crashes space shuttles."
- If the maintenance and repair cannot be safely conducted, the reactors need to shut down until such time as these activities can be conducted.

**Recommendations for Onsite COVID Response:**

- Workers' health and safety must come first in the work environment. All CDC guidelines must be observed to the maximum extent possible, including but not limited to keeping social distancing; wearing masks; necessary disinfecting of probable contaminated surfaces, public areas like restrooms, changing rooms, food rooms, vending machine areas, locker areas, stairs and elevators, radiation detectors, security checkpoints, and especially the control room.
- Daily temperature checks for incoming workers – regular employees and sub-contractors -- should be conducted, and records kept for all employees and contractors entering or remaining at the plant site.
- Isolated testing facilities must be maintained onsite, and workers regularly tested.
- Should a worker or contractor arrive at a reactor site and test positive, they should be:
  - Immediately quarantined, and refused further entry into the facility.
  - Be reported to local public health authorities, or county EMA and state Department of Health should none exist locally.
- Quarantine areas should be established for essential workers identified as COVID positive (e.g., reactor operators), who will need to remain onsite for the safe operation of the reactor and spent fuel areas. Should a need for some kind of quarantine be determined, it seems that the universal standard for this is a minimum of 14 days.

- Temporary, quarantined screening area should be established in the outer area of the reactor site, to conduct the screening activities described below, before an incoming contractor can gain access to either the temporary lodgings, or the reactor areas in which s/he will be working.
- Onsite temporary lodging trailers and facilities should be established for dedicated and exclusive use by all incoming contractors for the time they will be performing their maintenance and refueling duties and obligations.
- Contractors should remain onsite at the above described temporary lodging facilities for the entire duration of their work at the reactor site; they should not be permitted to leave the site for the duration of their contracted work, only at final exiting.
- To be granted entry to a reactor site, all individual contractors arriving at a reactor site must provide the following documentation:
  - Whereabouts for the past 14 days
  - Last reactor site worked at, and jobs/activities conducted, signed by an authorized personnel from that previous site, with contact information for that site personnel signing the document.
  - Written documentation of any previous COVID test results obtained within the past 14 days prior to arrival at the new reactor site.
  - A list of all states and towns passed though and stayed in, and a list of any temporary accommodations used (hotels, motels, camp grounds) or other stops made (restaurants, highway rest stops, any shopping, etc.) for the previous 14 days.

## Recommendations for Offsite Response:

- Reactor utilities should be required to notify all communities within the 10-mile EPZ of their intention to conduct any maintenance activities requiring the use of off-site contractors and personnel, no less than 21 days in advance of the work.
- Prior to the arrival of any contractors, reactor utilities should institute cooperative measures and response plans between local town, county and state health departments and facilities, for dealing with anticipated COVID-positive individuals.

## Recommendations for NRC and other Agency Responses:

- Provide for immediate reevaluation and reversal by the Task Force of NRC exemptions to lift work-hour limits for reactor power operations from 72 to 86 hours per week during the pandemic, due to the increased levels of fatigue on (a) workers' vulnerability to COVID-19 and (b) radiological health and safety.
- The Nuclear Regulatory Commission should coordinate with the Federal Emergency Management Agency to provide for immediate preparation of required Disaster Initiated Reviews (DIR) of the impact of the pandemic on emergency response plans at all reactor sites and fuel cycle facilities.
- NRC should establish a secure and confidential national contractor personnel data base, accessible by the appropriately identified reactor site screening personnel, that can collect and collate the health information gathered by the reactor site screening personnel (see above "Onsite" Recommendations). This will help reduce spread of COVID from workers going from site to site to do their work.

- NRC should be ordered by Congress to maintain a data base that identifies all positive COVID test results at all U.S. reactors.  Those numbers should be publicly available.
- NRC should adopt a temporary procedure and emergency rule that considers the COVID pandemic, and any such future health epidemics/pandemics, as "fitness for duty" (FFD) related, and therefore affecting the safe operation of the reactor site; and be obligated to implement all pertinent FFD procedures in relation to the pandemic.
- The Federal and State disaster authorities (FEMA; state disaster response agencies, etc.) should be ramping up best practices for offsite radiological emergency preparedness around every U.S. nuclear power station as a reasonable response to a pandemic.
- Given the unpredictability of COVID outbreaks, and current guidelines for response to radiological emergencies that run counter to CDC social distancing guidelines (e.g., rendezvousing at identified evac reception centers and evacuation sheltering facilities, obtaining KI pills at central sites, etc.), potassium iodide (KI) pills should be pre-distributed by direct delivery to every household and business within the 10-mile EPZ, in the event that "shelter in place" orders are in place to deal with COVID spread.