

# Transit – Safety First: Electrical System Operations, Management and Safety

This pilot credit applies to

- Transit (1-2 points)

## Intent

To promote best practices and ensure that the electrical systems are operated and managed safely during restarting of transit operations, post pandemic.

## Requirements

### Health and Hygiene:

- Provide workers with access to all necessary personal protective equipment (e.g., sanitizer, face masks/shields etc.) to keep them safe.
- Have the interiors of trains fumigated at the start and after every trips with disinfectants. Disinfect the stations and high contact surfaces (handrails, ticket vending machines, baggage scanners, escalators, elevators, etc.) frequently.
- Have in place training/ drilling procedures that ensure operations and field personnel are familiar with social distancing, infection control, and self-screening practices.

### Safe Operation of Electrical System:

- Conduct inspections across the project boundary including all rolling stock, using the [NEC Electrical Inspection Checklist](#) to identify any electrical issues and reduce the potential for any hazards or equipment damage while the transit operations resume.
- Keep the power substations, control rooms, areas under transformers, switchyards, backup power sources, AHUs (Air Handling Units) or HVACs (Heating, Ventilation and Cooling systems) etc., cleaned of dust and debris.
- Disinfect the above mentioned areas by following the original equipment manufacturer (OEM) instructions for specific cleaning protocols for equipments. Allow the disinfection solution to dry prior to re-energizing any equipment.
- Leverage technology like wearables to better monitor and optimize electrical equipment operation. Generate predictive failure or system inefficiency notifications to operators by implementing data analytics solutions and communication systems which are cyber secured.
- Establish safe operating procedures for working with electrical equipment including re-commissioning of rolling stock, electrical systems including substations, diesel generators, control rooms, lightning and ventilation systems, etc. and train staffs for post lockdown operations.

## Credit Documentation/Submittals

Documentation
Provide a narrative describing the: <ul style="list-style-type: none"><li>• Measures taken towards health and hygiene of the both transit workers and passengers.</li><li>• Disinfection process of trains, stations, high contact surfaces and electrical systems - with images</li><li>• Pandemic training provided for the operators and field personnel - with images</li></ul>
Electrical safety inspection report along with the checklist.
Narrative supporting the implementation of industrial wearables for employees or online platform for real-time asset health monitoring, providing predictive failure or system inefficiency notifications - along with images.
Submit a copy of the operational safety procedures especially during re-commissioning of rolling stock and electrical systems in stations.

## Questions to be included in the Pilot Credit Survey

- Has your project faced any major challenge due to the pandemic and if yes what are they?
- Does your project currently have an officially approved pandemic preparedness plan addressing:
  - Health and hygiene of workers and passengers, and
  - Safe operation of electrical system?
- If not, do you intend to develop a plan or update an existing plan in the next 1-2 years?
- Do these requirements provide comprehensive guidance to develop a pandemic preparedness plan and update an existing one?
- Are you implementing any additional strategies for safe operation of power system, which is not captured in the requirements?
- What were the major challenges faced in development of a pandemic preparedness and response plan?

## Background Information

With the easing of COVID-19 restrictions, some governments throughout the world have planned/ planning to reopen public transport systems as people would return to work, school, and other leisure activities. Still, many cities are struggling with the safe operation of transit systems and also, passengers seem reluctant to travel in masses.

Transit operators need to implement best practices to prevent the spread of COVID-19, meet operational challenges and to regain the trust of passengers.

Keeping in mind the health and hygiene of both transit workers and passengers, projects need to incorporate safety measures including disinfection of trains and stations periodically and to train the field personnel in post-pandemic operations.

Apart from hygiene measures, transit projects need to follow safety procedures in especially operating their electrical system both in trains and stations when they restart their operations post pandemic in order to prevent damage to electrical equipments.