

supporting agency should assign an individual to provide coordination with the lead agency at each incident command post.

- b. State, local, and federal emergency operations centers (EOCs) should be located, designed, built, and operated with security and operational integrity as a key consideration.
- c. Command posts should be established outside the potential collapse footprint of any building which shows evidence of large multi-floor fires or has serious structural damage. A continual assessment of building stability and safety should be made in such emergencies to guide ongoing operations and enhance emergency responder safety. The information necessary to make these assessments should be made available to those assigned responsibility (see related Recommendations 15 and 23 in NIST NCSTAR 1).
- d. An effective command system should be established and operating before a large number of emergency responders and apparatus are dispatched and deployed. Through training and drills, emergency responders and ambulances should be required to await dispatch requests from the incident command system and not to self-dispatch in large-scale emergencies.
- e. Actions should be taken via training and drills to ensure a coordinated and effective emergency response at all levels of the incident command chain by requiring all emergency responders that are given an assignment to immediately adopt and execute the assignment objectives.
- f. Command post information and incident operations data should be managed and broadcast to command and control centers at remote locations so that information is secure and accessible by all personnel needing the information. Methods should be developed and implemented so that any information that is available at an interior information center is transmitted to an emergency responder vehicle or command post outside the building.

Relevance to WTC 7: (1) The New York City Office of Emergency Management (OEM) was located in WTC 7 and was evacuated early in the day before key fire ground decisions had to be made. The location of OEM in WTC 7 contributed to the loss of robust interagency command and control on September 11, 2001. (2) Due to the collapse of the WTC towers and the loss of responders and fire control resources, there was an evolving site leadership during the morning and afternoon. Key decisions (e.g., decisions not to fight the fires in WTC 7 and to turn off the power to the Con Edison substation) were reasonable and would not have changed the outcome on September 11, 2001, but were not made promptly. Under different circumstances (e.g., if WTC 7 had collapsed sooner and fire fighters were still evaluating the building condition), the outcome could have been very different.

5.2.6 Group 7. Improved Procedures and Practices

The procedures and practices used in the design, construction, maintenance, and operation of buildings should be improved to include encouraging code compliance by nongovernmental and quasi-governmental entities, adoption and application of egress and sprinkler requirements in codes for existing buildings, and retention and availability of building documents over the life of a building.