1. 240.87 requires arc flash reduction, the installer had them retrofitted and installed them at the top of the gear at 8', is this a violation?

2. 410.36(B) requires luminaires installed in suspended ceilings to be attached to the ceiling members. Some jurisdictions require independent support wires instead. Are the wires allowed and/or required?

3. Can I use the 110.24-required available short-circuit current marking to determine my arc-flash PPE? Some experts have told me yes and other experts have told me no

4. Is it permissible to install LFNC underground for a feeder raceway from one structure to another such as a house to a detached garage?

5. Is it a violation to hang a 10' stick of rigid conduit to a 4" square box that an exit sign is attached to without supporting the box at the exit sign?

6. I am wiring a new home that is slab on grade so I got there ahead of time and ran a PVC conduit from the exterior wall out to where the island will be. I slipped a piece of NM cable through the pipe and had it rolled up lying on the floor when I called for my rough-in inspection. The inspector said I have to change it. Why?

7. Can a main breaker with a spare lug be used to attach a line side connection from a solar inverter? Can a main breaker with a spare lug be used to attach other service conductors to feed a small service disconnect next to each other?

8. A residential house with NM cable run throughout with spray foam insulation applied to the walls. Is the spray foam compatible with the NM cable insulation? Does the NM cable have to be de-rated because of the bundling of cables above the circuit breaker panel?

9. I keep finding that some electricians like to run the NM cables across the trusses, they consider the trusses are support. But 334.30 requires that NM cable needs to be secured no more that 4-1/2 ft. apart. And when run them at extreme angles there may be a lot longer between trusses. Can they do this without violating 334.30?

10. A 200-amp circuit is increased from 3/0 copper to 500 kcmil copper to compensate for voltage drop. What size copper equipment grounding conductor would be required for this circuit?

11. How are grounding and bonding conductors counted when derating conductors for ampacity?

12. A church undergoes a service change, the previous gear was rated at 800a and was replaced with the same size gear, and the personnel doors to the area do not comply with Article 110.26(C)(3), should the doors be updated to panic hardware and egress door swing?

13. I installed an optional standby system for a customer that wants to just run heat off from the generator to keep pipes from freezing, it is an automatic transfer switch but the customer will shut off breakers before he leaves to control the load. The inspector rejected this system and said it would be required to have load shedding, is he right?

14. Can a receptacle behind a TV (below 5.5 feet) count for wall space above a work area/counter or is it considered not accessible?

15. Is it required that 'reconditioned' equipment now be 'listed' or only marked?

16. I have a pull box that has multiple sets of 4/0 Copper coming in and going various directions. The customer now wants to tap off another set. Do I have to bond the box now that there is a tap and if so, how do I do it?

17. When doing the load calculations in accordance with Article 220, does the result need to be multiplied by 125% if it is a lighting load? If so, what is the NEC reference? The 125% is found in the branch circuit, feeder, etc. Articles; however, it is not to be found in Article 220.

18. Does an increase in distance from the breaker increase incident energy? Does an increase in distance from the secondary side of a transformer decrease incident energy?

19. Does the size of breaker matter in calculating incident energy? I.E. if we go through several breakers is it the fact that the breakers get smaller the further into the system you go decrease incident energy or is it the clearing times that are decreasing incident energy? Example: 200 Amp Main Breaker, 100 Amp Feeder Breaker to next panel, 20 Amp branch circuit breaker

20. Is a servicing disconnect required on the side of a furnace in a house, even if it is in the same room as the panel?

21. Does the coffee maker and the roller dog machines require GFCI protection on the serving counter of a convenience store?

22. Can I feed a multi-wire feeder to a detach garage and the put in a panel board with 3 single-pole breakers and 3 double-pole breakers and without main breaker?

23. I have a 1200-amp main service with a 400-amp feed to a subpanel. This feeder is a parallel run set in two separate raceways. The ungrounded conductors are 250 kcmil aluminum. What is the minimum size equipment grounding conductor required in each raceway?

24. I was called to do a service change on an older home. I have to move the panel over to the right about 6 feet to gain proper working clearances and dedicated space issues. Am I required to install AFCI breakers in this new panel?

25. I am remodeling a building that an optometrist will be doing Laser Surgery for correcting vision among other services that they offer. My question is, does the part of the building that will be part of the laser surgery need to meet the requirements of 517 of the NEC? I do not see where the optometrist needs to meet the requirement.

26. How often does the ground-fault protection for equipment need to be tested? 230.95 (C) states when it is installed a performance testing is required but after that it is not clear when it needs to be tested after that.

27. I am feeding a fused AC disconnect from AC combiner panel that receives it power from three inverters from a large solar array. NEC 240 requires the fuses in the AC disconnect need to be de-energized when the switch is open. How does one do that when both sides are hot?

28. I am using the tap rules allowed in NEC Article 240.2(B) (5). I am tapping off the load side of the 400-amp service disconnect with #2 CU cables that feed a 100-amp main breaker CB panel. When sizing the equipment grounding conductor, table 250.122, do I size it for a 400-amp breaker or can I size it for 100-amp breaker?

29. An electrician has set a 150 Amp 120/240 Volt single phase combination meter/main & panel service on a home. They use a 100 Amp circuit breaker to feed # 2 Aluminum 4 wire SER cable that runs to a sub-panel in the home. The 100 Amp circuit breaker is the only breaker in the panel. Is this up to code?

30. In article 404.2.(C) where a grounded conductor is needed in a switch box, do you need a grounded conductor for each circuit in the box? If not, will the ark fault device still work?

31. If I have a separate underground service for a fire pump entering the fire pump controller at the nearest point of entry and the controller has a disconnecting means built into it (they are all service rated by code), do I need an additional disconnecting means ahead of the controller?

32. Is it required to have a bonding bushing in a 208v disconnect when a reducing washer is used and all of the rings were not removed? If so what if MC is the wiring method.

33. I have seen installers cut some of the grates at the bottom of the transformer and stub up PVC conduits in this area, is this legal?
34. Separate structures require a grounding electrode. Since this conductor does not go to the grounded conductor is it legal to simply install a lug in the panel and use the panel as a conductor to the ground bar?

35. Does a 480 Volt 3 phase ungrounded delta electrical service require bonding of service conduits?

36. In the construction of a swimming pool, a connection between the building steel and the reinforcing rod in the pool casing is prohibited. Does it create a hazard if they are connected and the building steel and the reinforcing is common to each other?

37. NEC 250.50 Part III Grounding Electrode Systems and Grounding Electrode Conductors specifies that you shall use any of the electrodes available in NEC 250.52 (A)(1) through (A)(7) that are present. It does not require that you provide a grounding rod electrode if you have other systems such as UFER ground, building steel, and the like. The utility does require grounding electrodes. For the price it is not worth the argument but is there any reason to use grounding electrodes when they are not nearly as effective as the building steel or UFER grounding?

38. I'm working in a church. Why can't I use SER cable from the combination meter socket disconnect to the sub feed panel?

39. Is it true that we now must identify the raceways and cables used for emergency wiring?

40. Do the switches in a screen porch need a weatherproof cover? The inspector seems to think so.

41. Is it a code violation if a switch is behind a door? The builder installed a door that had a different "swing" than what was on the plan. The owner is ok with the location and doesn't want to change. I don't think it can be there. What do you say ?

42. In a service garage, the inspector wanted the cables for the door sensors in a raceway. Why would he request something that isn't even made?

43. Is an above grid return air plenum considered a hollow space for the installation of a transformer smaller than 50Kva?

44. An existing ceiling fan is being replaced, and the new ceiling fan is mounted by a means that is now considered a receptacle by Article 100. Would this be considered a modification of the circuit and would it now be required to have AFCI protection?

45. Does the 6'7" maximum height requirement for "Readily Accessible" found in Art. 240.24 (A) apply to the disconnect switch contained in PV Inverters?

46. The design professional told us he wanted a lock on the main disconnect for a commercial building. We told him we couldn't do that because in case of an emergency, the disconnect could not be shut off. He is pretty sure it is alright. What do you say?

47. What are the marking requirements for emergency panels?