



McDonald's Restaurants of Canada Limited
McDonald's Place, Toronto, Ontario
M3C 3L4

Bulletin contents are
MISSION CRITICAL
and must be incorporated into
Construction.

NATIONAL DESIGN / EQUIPMENT BULLETIN

ITEM:	Electrical Standards for McDonald's P.O.S. System
Date:	February 17 th , 2014
BULLETIN No. :	42.7
Issued By:	Mike Carlile – National Restaurant Design, Henry Chong – National Information Technology

This revised bulletin is being issued to provide the revised McDonald's electrical standards for all POS installations. **Updated information has been added to Circuit Breakers for POS to accommodate Kiosks to connect to POS Panel D. Two new electrical audit checklists have been added. These are to be completed by the electrical contractor verifying their compliance with McDonald's electrical standards.**

Included in this Bulletin are the McDonald's electrical standards for all POS installations. No substitutions or changes are to be made to any of these details without written approval from the National Design & Construction Dept, National Operations and National I.T. teams.

1. Trad Restaurants – POS Circuits Panelboard:

- All POS devices must be fed from a separate Isolated Ground (IG) Panel, protected by a TVSS (Transient Volt Surge Suppression) device that is directly connected to that same panel.
 - This panel (typically named "D") must be fed directly from the Main Electrical Distribution Panel and cannot be sub-fed from any other panel
 - Note:** This panel must not be used for any general power, lighting, motor and kitchen equipment other than the breaker for the Shake & Sundae machine as noted below.
- The **ONLY** exception (non-technology) equipment allowed to be on the separate POS panel is the breaker for the Shake & Sundae machine; **ONLY** where the breaker for the Shake & Sundae machine is isolated from all other technology circuits on that same panel.
- Security systems, Music systems, Payroll/Time Clock systems, Drive-Thru headset systems, Fax/Phone systems are all allowed to be included in the POS Isolated Ground TVSS protected panel.
- Although it may be within the code to have POS loads dispersed between more than one panel, it is McDonald's standard to house all POS circuits in one single separate IG Panel, protected by a TVSS device that is directly connected to that same panel.
- The POS Isolated Ground, TVSS protected panel must have its own isolated ground running back to the cold water entry pipe or other ground source that meets building code.

2. SPOD, Mall/Food Court Restaurants – POS Circuits Panelboard:

- Mall/Food Court** – For McDonald's in a **Mall/Food Court** where there is a single sub-panel that houses all devices including POS and that panel is without TVSS protection, it is prudent that all attempts be made to provide either:
 - Install a new separate IG POS panel, protected by a TVSS device that is directly connected to that same panel, fed from the Mall/Food Court Main Distribution, or
 - Where available space does not allow for the installation of a new separate POS panel than you must provide direct TVSS protection for the existing panel and ensure that all POS circuits are IG and are isolated from all other non-POS circuits on that same panel.
- All other SPOD locations** – All POS devices must be fed from a separate Isolated Ground Panel protected by a TVSS (Transient Volt Surge Suppression) device that is directly connected to that same panel.
 - This panel (typically named "D") must be fed directly from Main Electrical Distribution Panel and cannot be sub-fed from any other panel.
 - Note:** This panel must not be used for any general power, lighting, motor and kitchen equipment other than the breaker for the Shake & Sundae machine as noted below.

- c. The ONLY exception (non-technology) equipment allowed to be on the separate POS panel is the breaker for the Shake & Sundae machine; ONLY where the breaker for the Shake & Sundae machine is isolated from all other technology circuits on that same panel.
- d. Security systems, Music systems, Payroll/Time Clock systems, Drive-thru headset systems, Fax/Phone systems are all allowed to be included in the POS Isolated Ground, TVSS protected panel.
- e. Although it may be within code to have POS loads dispersed between more than one panel, it is McDonald's standard to house all POS circuits in one single separate IG panel protected by TVSS.
- f. The POS Isolated Ground, TVSS protected panel must have its own isolated ground running back to the cold water entry pipe or other ground source that meets building code.

3. McDonald's in Walmart Locations – POS Circuits Panelboard:

- a. All POS IG circuits will be on the single "Walmart" TVSS protected panel, where all POS IG circuits are isolated from all other non-technology circuits on that same panel with an isolated ground running back to the cold water entry pipe or other ground source that meets building code.
- b. All McDonald's in Walmart electrical panels (Main Distribution down to Sub-tenant panels) are TVSS protected. Because McDonald's is a sub-tenant within Walmart, the Electrical Service Standards required for our POS devices were adequately protected at the time the restaurant opened.
- c. No changes or additions to the electrical panel in a McDonald's in Walmart location can be made without the written consent of Walmart, confirming that those changes will meet the current Walmart & McDonald's electrical standards.

4. Circuit Breakers for POS:

- Front Counter: UPS/Stab line/Registers = One I.G. Circuit per 2 devices (staggered)
- Network & Communications Cabinet = One I.G. Circuit
- Drive-Thru Cash Booth Registers/Monitors/Itona = One I.G. Circuit
- Drive-Thru Presenter Booth Registers/Monitors/Itona = One I.G. Circuit
- Drive-Thru Coin Changer = One I.G. Circuit
- Kitchen KVS: Monitors/Itona/Grill printer/Monitors at HLZ = One I.G. Circuit
- COD 1 & 2 (Customer Order Display) = One I.G. GFI Circuit
- E-Learning in Crew Room = One I.G. Circuit
- Manager's Office Monitor/Computer/Printer = One I.G. Circuit
- Digital Menu Boards = One I.G. Circuit for up to 3 boards. Additional I.G. Circuit for second group of boards
- McCafe Menu Boards = One I.G. Circuit
- Dual Point: Monitors/Itona/USB Extender = One I.G. Circuit
- **Kiosk: Touch panels/Printers/Pinpads/SRMs = One 20AMP GFI Circuit**

5. Electrical Site Survey of Existing Restaurant: An Electrical Survey must be completed by a qualified electrician to ensure that all available POS circuits are Isolated Ground and TVSS protected.

6. Refer to attached PDF plan: *ELECTRICAL – DATA POS STANDARDS DEC 2010.pdf*

7. Electrical contractor to ensure that all (new, relocated & existing) POS equipment is to be installed in isolated ground panel c/w TVSS. All existing and relocated equipment not meeting these requirements are to have conduit/wiring revised and extended to IG panel and correct IG receptacle.

8. Should the location require an IG panel, a minimum 60a/3p, 30cct, 120/208v, 3ø, 4w panel c/w isolated ground bar and built-in TVSS (Siemens # tps-c-1-120) is to be installed to power all POS equipment. Panel required size will be 100 Amps if the Shake & Sundae circuit breaker is present in POS panel.

9. NO EXCEPTIONS. ALL P.O.S. EQUIPMENT MUST ADHERE TO THE ABOVE MENTIONED GUIDELINES.

10. FAILURE TO ADHERE TO THE ABOVE STANDARDS WILL JEOPARDIZE THE SIGNED "CONFIRMATION OF ELECTRICAL STANDARDS" FORM OUR TECHNOLOGY PARTNERS (NCR & IBM) ARE REQUIRED TO SECURE BEFORE ANY NEW POS REGISTERS CAN BE INSTALLED.

11. The electrical contractor, who completes the electrical scope of work as part of a D2012, rebuild or relocation activity, or performs an audit per McDonald's or franchisee's demand, in any McDonald's restaurant must confirm that the restaurant meets McDonald's POS Electrical Standards (above).

12. The electrical contractor would fulfill this commitment by signing a copy of the attached "Confirmation of Electrical Standards" document and providing a signed copy of the document to the I.T. vendor or Construction PM where applicable.

13. Please also send an electronic copy of the signed "Confirmation of Electrical Standards" document to the following McDonald's electrical standards reporting e-mail address: CA-ElectricalConfirmation@ca.mcd.com

NOTE: There was a ten year period where McDonald's Restaurant Design/McDonald's Construction included the breaker for the Shake & Sundae machine in the TVSS protected POS/technology panel due to the amount of electronic components in that machine. McDonald's was taking advantage of the TVSS on the POS panel to provide additional protection for the Shake & Sundae machine.

The current McDonald's National Design Standards no longer include the breaker for the Shake & Sundae machine in the TVSS protected POS/technology panel in new build construction. The electrical breaker for the Shake & Sundae machine will now be connected to the Main Kitchen panel.

For existing restaurants that already do have a separate POS IG TVSS protected panel where the breaker for the Shake & Sundae machine is not currently in that separate POS IG TVSS protected panel there is no requirement to move the breaker for the Shake & Sundae machine into that panel.

No substitutions or changes are to be made to this detail without written approval from National Design & Construction, National Operations and National I.T.

This Design/Equipment Bulletin is a notification to McDonald's Architects, Consultants, Contractors, Restaurant Development Staff and Walmart, providing updates/addendums to Design, Equipment, Construction Drawings or Specifications packages. The information reflected in this Bulletin should be incorporated into the Standard Construction and Equipment Documents for all future projects. All and/or any costs associated with the information in these Bulletins must be relayed to the respective Regional Manager of Construction for review and approval prior to implementation.

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McDonald's POS AUDIT Electrical Audit

National # _____	Restaurant Contact _____
Date (yyyy-mm-dd) _____	Restaurant Contact # _____
Electrician name _____	Electrician Licence # _____
Electrician signature _____	

All POS circuits must be fed from a single Isolated Ground, TVSS protected (Transient Volt Surge Suppression) Electrical Panel

1 -- All POS Circuits Powered from ONE Electrical Panel

All POS equipment shall be powered from the same electrical panel. REQUIRED ACTION:

1) Inspect all electrical panels to determine which panel the branch circuits for all POS equipment are connected to

Caution: Panel Schedules may not be accurate. In order to verify which circuits belong to the POS equipment, circuit breakers will need to be shut off and a visual inspection to see which corresponding POS and ancillary equipment is also shut off (Check with the store manager prior to shutting off any circuit breakers).

Panel Checklist			
POS circuits to be examined	POS Equipment on EACH SEPARATE IG Circuit	List Panel where circuit is powered from?	Comments
Front Counter	UPS / Registers (One Circuit for each 2 UPS)		
Network Communications Cabinet	Network Communications Cabinet		
Drive-thru Cash Booth	UPS / Registers (One Circuit for each 2 UPS)		
Drive-Thru Present Booth	UPS (One Circuit for each 2 UPS); Drive-Thru & CBS Itona & Monitors; Receipt Printer		
Drive-Thru Coin Dispenser	Drive-Thru Coin Dispenser in Cash Booth		
Kitchen	KVS Itona & Monitors (up to 4) at Both Ends of the Prep Line; Regular & Breakfast Grill Printer(s);		
COD 1/ 2	COD 1/2 in the Drive-Thru Lane(s)		
e-Learning Computer	e-Learning Computer in Crew Room		
Managers Office	Server Cabinet (Back Office Computer and POS Server), Back Office Printer		
Digital Menu Board(s)	1 to 2, 42 to 46 Inch Digital Menu Board(s) in the McCafe Area of the Front Counter		
Kiosk(s)	On a 20amp circuit		

If the restaurant does NOT have a DEDICATED SINGLE POS panel then the site FAILED the Electrical Audit. In the case of a FAIL for Section #1 then Section #2 does not require completion. Work needs to be scheduled to meet McDonalds Electrical Standards National Design Bulletin # 42.7 Should the restaurant not have a single IG POS panel protected by a TVSS then the site must arrange for the installation of a minimum 60a/3p, 30cct, 120/208v, 3ø, 4w panel C/w isolated ground bar and built-in TVSS (Siemens #tps-c-1-120) to be installed to Power all POS equipment; as per McDonald's National Design Bulletin 42.7

Comments/Notes

2 -- POS Panel Protected by TVSS (Transient Volt Surge Suppression) Unit

The SINGLE POS electrical panel MUST be protected by a TVSS (Transient Volt Surge Suppression) unit. REQUIRED ACTION:

- 1) Inspect the POS electrical panel to identify that the panel is protected by a TVSS unit (Transient Volt Surge Suppression).

If the restaurant does NOT have a DEDICATED SINGLE POS panel protected by a TVSS unit then the site FAILED the Electrical Audit. In the case of a FAIL for Section #1 or Section #2 work needs to be scheduled to meet McDonalds Electrical Standards Natinal Design Bulletin # 42.7 Should the restaurant not have a single IG POS panel protected by a TVSS then the site must arrange for the installation of a minimum 60a/3p, 30cct, 120/208v, 3ø, 4w panel C/w isolated ground bar and built-in TVSS (Siemens #tps-c-1-120) to be installed to Power all POS equipment; as per McDonald's National Design Bulletin 42.7

Comments/Notes	

3-- Isolated Ground/Dedicated Circuit Checklist

The Standard requirement for POS System Power is a wiring methodology known as "Isolated ground/Dedicated circuit". Simply, the hot, neutral, equipment ground and isolated ground conductors are routed together in their own separate conduit from the power source, to the junction box in which their isolated ground receptacle is mounted.

All POS equipment shall be powered using isolated ground/dedicated branch circuits. Complete Section # 3 and section # 4 of this Electrical Audit ONLY if the site has PASSED Section #1 and Section #2.

Required Action:

- 1) Electrician to inspect all POS branch circuits from their receptacles to the distribution sub panel for compliance with "Isolated ground/Dedicated circuit"
- 2) Electrician shall verify that each POS receptacle has a low impedance grounding path
- 3) Electrician to check the voltage at all POS IG receptacles
- 4) Electrician to check polarity of all POS IG receptacles
- 5) Electrician shall inspect and replace any receptacle that is damaged or worn with a suitable IG type receptacle
- 6) Electrician to verify all electrical connections are tight at the IG receptacles terminals and at all wire nut connections. Electrical connections shall only be made using the screw terminals on receptacles. Do not use back wire quick-connections. Any receptacles found back wired shall be reworked
- 7) Complete the Checklist below to document what work was performed and what was found.
- 8) When all work has been completed, electrician shall reinstall and/or close all panel covers and junction boxes as necessary to prevent exposure of live electrical components to anyone.

[illegible]

Comments/Notes

Isolated Ground Receptacle Checklist													
POS Receptacles to be inspected	Correct Polarity			Damaged or Worn			Loose		Backwired		True RMS Voltage (Acceptable Range 120V +/- 7V)	Comments	
	Y	N	Fixed	Y	Fixed	N	Y/N	Fixed	Y/N	Fixed			
Front Counter													
Network Communications Cabinet													
Drive-thru Cash Booth													
Drive-Thru Present Booth													
Drive-Thru Coin Dispenser													
Kitchen													
COD 1/ 2													
e-Learning Computer													
Managers Office													
Digital Menu Board(s)													
Kiosk(s)													
Comments/Notes													

4-- POS Specific Checklist
Isolated Ground Receptacle Checklist
Place a 'checkmark' in the appropriate "Yes" or "No" box. (Correct answer is "Yes" for every box.)

Yes No

Yes No

1. The Digital Menu Board (DMB) units and DMB controller are on the insulated/isolated grounded panel
2. The televisions (TVs) are **not** on the POS insulated/isolated panel
3. There are 3 devices in the CBS area, the CBS unit, the refrigerator for the CBS unit, and the smoothie machine. They **cannot** be on the insulated/isolated panel. The CBS monitor and the CBS printer should be on the insulated/isolated panel.
4. The Shake machine is **not** on the Insulated/isolated panel. It should be moved off the Insulated/isolated panel.
5. The Coin Dispenser should be on separate circuit, **not** on the same circuit as the UPS for the POS.
6. The Office printer should **not** be on the same circuit as the Server Cabinet
7. The e-Learning system should be on the insulated/isolated panel, nothing else in the training room should be on the insulated/isolated panel
8. The COD's should be on the insulated/isolated panel
9. Front counter should have 2 circuits.
10. There are 2 types of TVSS units- an integral one that comes with the switchboard and a "brick" that the EC needs to install to the side of the switchboard and/or panelboard.
11. UPS units are **not** mounted near heaters
12. Outlets are **not** above the ceiling tile where they are not accessible
13. COD Audio Headset wireless are **not** on the insulated/isolated circuits
14. The Kiosk units are on a 20amp insulated/isolated circuit grounded panel
15. All other devices that are **not** part of the POS system should be on panels other than the insulated/isolated panel.

THE ELECTRICIAN SHALL COMPLETE THE BELOW CHECKLIST
TO VERIFY COMPLIANCE WITH McDONALD'S SPECIFICATIONS.

START HERE

A

VISUALLY INSPECT THE MAIN ELECTRICAL PANEL (MDP)

IN THE MAIN PANEL

Yes No

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. IS AN <u>EQUIPMENT GROUND BAR</u> INSTALLED SUCH THAT IT IS ELECTRICALLY <u>CONNECTED</u> TO THE PANEL? |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. DO ALL NEUTRAL CONDUCTORS TERMINATE ONLY TO THE NEUTRAL BAR? |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. DO ALL EQUIPMENT GROUND CONDUCTORS TERMINATE ONLY TO THE EQUIPMENT GROUND BAR? |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. DOES THE ISOLATED GROUND CONDUCTOR (GREEN W/YELLOW STRIP) TERMINATE ON THE EQUIPMENT GROUND BAR? |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. IS THERE AN APPROPRIATE ELECTRICAL CONNECTION (BOND) BETWEEN THE NEUTRAL BAR AND THE EQUIPMENT GROUND BAR? |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. DOES THE GROUNDING SYSTEM COMPLY WITH McDONALD'S "BUILDING ELECTRICAL GROUNDING DETAIL"? |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. IS A SURGE PROTECTOR INSTALLED THAT COMPLIES WITH McDONALD'S "TVSS INSTALLATION GUIDE" OR DETAIL? |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. ARE ALL ELECTRICAL CONNECTIONS (WIRING & BUSING) PROPERLY TIGHTENED? |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. ARE ALL CIRCUIT BREAKERS CLEARLY LABELED? |

Yes No

CONTINUE

B

VISUALLY INSPECT THE ELECTRICAL PANEL THAT POWERS POS

IN THE POS (SUB) PANEL 'D'

Yes No

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. IS AN <u>EQUIPMENT GROUND BAR</u> INSTALLED SUCH THAT IT IS ELECTRICALLY <u>CONNECTED</u> TO THE PANEL? |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. IS AN ISOLATED GROUND BAR INSTALLED SUCH THAT IT IS ELECTRICALLY INSULATED FROM THE PANEL? |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. DO ALL NEUTRAL CONDUCTORS TERMINATE ONLY TO THE NEUTRAL BAR? |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. DO ALL EQUIPMENT GROUND CONDUCTORS TERMINATE ONLY TO THE EQUIPMENT GROUND BAR? |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. DO ALL ISOLATED GROUND CONDUCTORS (GREEN W/YELLOW STRIP) TERMINATE ONLY TO THE ISOLATED GROUND BAR? |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. ARE ALL ELECTRICAL CONNECTIONS (WIRING & BUSING) PROPERLY TIGHTENED? |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. ARE ALL POS AND COD CIRCUIT BREAKERS ON THE SAME PANEL? |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. ARE ALL CIRCUIT BREAKERS CLEARLY LABELED? |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. DO ALL POS & COD CIRCUIT BREAKERS HAVE A LOCKING MECHANISM ON THEIR HANDLES TO PREVENT THEM FROM BEING SHUT OFF BY MISTAKE? |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. DOES THE FEED CIRCUIT FOR THIS SUBPANEL CONTAIN A PHASE, NEUTRAL ONE EQUIPMENT GROUND AND ONE ISOLATED GROUND CONDUCTORS THAT ARE PROPERLY TERMINATED? (SEE POS&COD ISO GND/DED CKT DETAIL) |

Yes No

REWORK ELECTRICAL

CONTINUE

VISUALLY INSPECT THE REMAINING ELECTRICAL SUBPANELS

IN THE REMAINING SUBPANELS

Yes No

☐ ☐

1. IS AN EQUIPMENT GROUND BAR INSTALLED SUCH THAT IT IS ELECTRICALLY CONNECTED TO THE PANEL?

☐ ☐

2. DO ALL NEUTRAL CONDUCTORS TERMINATE ONLY TO THE NEUTRAL BAR?

☐ ☐

3. DO ALL EQUIPMENT GROUND CONDUCTORS TERMINATE ONLY TO THE EQUIPMENT GROUND BAR?

☐ ☐

4. ARE ALL ELECTRICAL CONNECTIONS (WIRING & BUSING) PROPERLY TIGHTENED?

☐ ☐

5. ARE ALL CIRCUIT BREAKERS CLEARLY LABELED?

☐ ☐

6. DOES THE FEEDER CIRCUIT FOR THIS SUBPANEL CONTAIN PHASE, NEUTRAL AND ONE EQUIPMENT GROUND CONDUCTORS THAT ARE PROPERLY TERMINATED? (SEE BUILDING ELECTRICAL GROUNDING DETAIL)

Yes No

CONTINUE

C

VISUALLY INSPECT THE POS BRANCH CIRCUITS

IN THE POS BRANCH CIRCUITS:

Yes No

☐ ☐

1. ARE THE POS BRANCH CIRCUITS ROUTED IN THEIR OWN CIRCUIT BY THEMSELVES?

☐ ☐

2. IF THE POS BRANCH CIRCUIT IS ROUTED ABOVE GRADE, IS IT IN A METALLIC CONDUIT?

☐ ☐

3. DOES EACH POS BRANCH CIRCUIT CONTAIN:
ONE PHASE (BLACK COLOURED INSULATION)
ONE NEUTRAL (WHITE COLOURED INSULATION)
ONE EQUIPMENT GROUND (GREEN COLOURED INSULATION)
ONE ISOLATED GROUND (GREEN W/YELLOW STRIP COLOURED INSULATION)

☐ ☐

4. DO ALL EQUIPMENT BRANCH CIRCUITS TERMINATE AT EITHER AN 164700, 164710, 165262, RECEPTACLES OR ANY COMBINATION OF THESE?

☐ ☐

5. ARE ALL ELECTRICAL TERMINATIONS TO 16 RECEPTACLES MADE WITH SOLID #12 AWS WIRE CAPTURED AROUND THE SCREW BARREL AND SUITABLY TIGHTENED?

☐ ☐

6. ARE ALL ELECTRICAL CIRCUIT CONNECTIONS PROPERLY TIGHTENED?

☐ ☐

7. ARE THE CORRECT AMOUNT AND TYPE OF 16 RECEPTACLES PROVIDED AS SHOWN IN THE ELECTRICAL ROUGH-IN PLAN, NOTES AND INFORMATION?

☐ ☐

8. DO ALL POS RECEPTACLES HAVE ORANGE "COMPUTER ONLY" COVER PLATES?

☐ ☐

9. DO ALL POS BRANCH CIRCUITS COMPLY WITH THE "POS & COD" ISOLATED

☐ ☐

10. DO ALL KIOSK BRANCH CIRCUITS COMPLY WITH THE "POS & COD" ISOLATED GROUND/DEDICATED CIRCUIT DETAIL?

Yes No

CONTINUE

REWORK ELECTRICAL

CONTINUE

D

VISUALLY INSPECT THE POS BRANCH CIRCUIT FOR THE COD

IN THE COD BRANCH CIRCUIT:

Yes No

☐ ☐

1. ARE THE COD BRANCH CIRCUITS ROUTED IN THEIR OWN CIRCUIT BY THEMSELVES?

☐ ☐

2. DOES EACH COD BRANCH CIRCUIT CONTAIN:
ONE PHASE (BLACK COLOURED INSULATION)
ONE NEUTRAL (WHITE COLOURED INSULATION)
ONE EQUIPMENT GROUND (GREEN COLOURED INSULATION)
ONE ISOLATED GROUND (GREEN W/YELLOW STRIP COLOURED INSULATION)

☐ ☐

3. IS THE COD POWERED FROM THE SAME PHASE AS THE POS?

☐ ☐

4. DOES THE BREAKER FOR THE COD HAVE A LOCKING MECHANISM ON ITS HANDLE THAT WILL PREVENT IT FROM BEING SHUT OFF?

☐ ☐

5. DO THE COD BRANCH CIRCUIT(S) COMPLY WITH THE "POS & COD ISOLATED GROUND/DEDICATED CIRCUIT DETAIL?"

☐ ☐

6. IF THE COD HAS AN OPTICAL ISOLATOR, IS A STRAIGHT BLADE ISOLATED GROUND RECEPTACLE ON AN ISOLATE GROUND/DEDICATED CIRCUIT PROVIDED FOR IT?

Yes No

REWORK ELECTRICAL



No

REWORK ELECTRICAL SYSTEM TO
BRING INTO COMPLIANCE WITH
McDONALD'S SPECIFICATIONS

Yes

ELECTRICIAN, YOUR WORK IS NOT CONSIDERED AS MEETING McDONALD'S SPECIFICATIONS UNTIL THE INSTALLED ELECTRICAL SYSTEM SUPPORTS A "Yes" ANSWER FOR ALL THE QUESTIONS ASKED.

AS PART OF THIS PROCESS, THE ELECTRICIAN AND THE GENERAL CONTRACTOR WILL BE REQUIRED TO SIGN AN ELECTRICAL CERTIFICATION DOCUMENT INDICATING THAT THE INSTALLED ELECTRICAL SYSTEM MEETS McDONALD'S SPECIFICATIONS.

DO NOT SIGN THE ELECTRICAL CERTIFICATE **UNTIL** THE INSTALLED ELECTRICAL SYSTEM SUPPORTS A "Yes" ANSWER FOR ALL QUESTIONS ASKED.

NOTICE

ANY CHANGES MADE TO THE POS ELECTRICAL SYSTEM AFTER THE CERTIFICATION PROCESS HAS BEEN COMPLETED WILL REQUIRE SYSTEM RE-CERTIFICATION.

CHANGES **SHALL NOT** BE MADE TO THE POS ELECTRICAL SYSTEM AFTER THE POS EQUIPMENT HAS BEEN INSTALLED WITHOUT FIRST NOTIFYING THE POS VENDOR.

Confirmation of Electrical Standards

*Below is a **summary** of the McDonald's electrical standards for all POS installations taken from McDonald's NATIONAL DESIGN / EQUIPMENT BULLETIN 42.7 dated December 18, 2014.*

No substitutions or changes are to be made to any of the standards included in DCB 42.7 without written approval from National Design & Construction, National Operations and National I.T.

1. **POS Circuits - Panel board:** All POS devices must be fed from a (separate) Isolated Ground (IG) Panel, protected by a TVSS (Transient Volt Surge Suppression) device that is directly connected to that same panel

2. **Circuit Breakers for POS:**
 - Front Counter: Two registers per one UPS – One I.G. Circuit per 2 UPS devices (staggered)
 - Network & Communications Cabinet – One I.G. Circuit
 - Drive-Thru Cash Booth Registers/Monitors/Itona box – One I.G. Circuit
 - Drive-Thru Present Booth Registers/Monitors/Itona box – One I.G. Circuit
 - Drive-Thru Coin Changer – One I.G. Circuit
 - Kitchen KVS: Monitors/Itona boxes/Grill printer/Monitors at HLZ – One I.G. Circuit
 - COD 1 or 2 (Customer Order Display) - One I.G. GFI Circuit
 - e-Learning in Crew Room. – One I.G. Circuit
 - Manager's Office Server Cabinet/Monitor/computer/printer – One I.G. Circuit
 - Digital Menu Boards = One I.G. Circuit for up to 3 boards. Additional I.G. Circuit for second group of boards
 - McCafe Menu Boards = One I.G. Circuit
 - Dual Point: Monitors/Itona/USB Extender = One I.G. Circuit
 - Kiosk: wall mount and pedestal mount = One 20amp I.G. Circuit

3. **Electrical Site Survey** and any required electrical upgrades must be completed for all existing restaurants, to ensure that they meet the electrical standards detailed in DCB 42.6, prior to upgrade to NP6, no exceptions.

The below listed electrician certifies that all POS circuits in the below listed restaurant adhere to all of the electrical standards detailed in National Design / Equipment Bulletin DCB 42.6

McDonald's National # _____

Restaurant NAME: _____

Confirmed By
(Print NAME of Electrician): _____ LIC # _____

SIGNATURE of Electrician: _____

Electrical Company NAME: _____

Date (month/day/year): _____

(To be signed ONLY after the work has been completed)

In addition to providing a copy of this signed form to your I.T. vendor / Construction PM (where applicable) please also send an electronic copy of the signed form to the following McDonalds electrical standards reporting e-mail address: CA-ElectricalConfirmation@ca.mcd.com

