TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER El PASO

Operating Policy and Procedure

HSCEP OP: 61.22, **Installation of Cabling in Texas Tech University Health Sciences Center El Paso Facilities**

PURPOSE: The purpose of this Texas Tech University Health Sciences Center El Paso (TTUHSC El Paso) Operating Policy and Procedure (HSCEP OP) is to establish a standard procedure for the approval and installation of cable in TTUHSC El Paso buildings to control the quality of the work.

REVIEW: This HSCEP OP will be reviewed on August 1 of each odd-numbered year (ONY) by the Senior Director of Facilities Operations and Maintenance - Physical Plant (FOM) and the Managing Director for Physical Plant and Support Services (MDPPSS), or designees with recommendations for revisions submitted to the Chief Financial Officer (CFO) or designee by September 15.

POLICY/PROCEDURE:

1. **Definitions.** For the purpose of this HSCEP OP, cabling is defined as conductor(s) serving any communications, telephone, fiber optic, security alarm, energy monitoring system, data acquisitions, television circuits, two-way radios, department/school network computer or electrical system.

2. **Control.** The Managing Director for Physical Plant and Support Services (MDPPSS) or designee is responsible for policy regarding cable that is installed in all TTUHSC El Paso facilities. Requests for the installation of cabling in any TTUHSC El Paso facility shall be approved by the MDPPSS or designee. Approval will be based on the user's certification that cable is required, proper funding is available, and the procedures adhere to codes and installation standards of cabling for plenums, equipment rooms and building interiors.

3. **Authorization.** A NEW CONSTRUCTION REQUEST FORM (Attachment A - Sample Only) shall be submitted to the MDPPSS or designee identifying the type of system being served, the location and type of equipment, the number and type of cable to be installed, termination locations, the contact person, the system used to identify the cable, the installation method and the schedule under which the cable is to be installed. Requests should be submitted to the appropriate Physical Plant/ FOM. Please see Section 7 of this HSCEP OP for additional details.

4. **Notification.** In the event an outside vendor is to install the cabling, Physical Plant/FOM shall be notified by Information Technology as to the name of the vendor, the date of the Notice to Proceed, and the proposed completion date.

5. **Inspection.** Physical Plant/FOM will be compensated by project to inspect the cable installation if an outside vendor completed the work to ensure that:

    a. All cable and related items are properly installed and identified in accordance with the installation standards in Section 7;

    b. All debris (excess cables, empty spools, boxes and any other materials) are removed from the job site upon completion of the work; and

c. All ceiling tiles are returned to their original places and ensure tiles have incurred no damage. All damaged tiles must be replaced with tiles that match existing tiles within 30 days at the vendor's expense.

6. **Liability.** Should Physical Plant/FOM determine that cables have been installed by improper installation procedures or that the installation has damaged finishes, including damaged ceiling tiles, the user/department will be notified of the deficiencies requiring corrections. If the department fails to correct the deficiencies within an appropriate time frame, the deficiency will be corrected at the user/department's expense by Physical Plant/ FOM.

7. **Standards.** All cabling shall be installed in a consistent manner in accordance with the following guidelines:

a. All non-plenum rated cable will be run in conduit from termination to termination points. All plenum cable shall be rated and code approved for the conducted service.

b. Plenum rated cabling run in the interstitial above dropped ceilings does not need to be run in conduit for data runs, but shall be installed and supported as close as possible to the floor pan above. Telephone runs shall be installed in conduit/raceway or other approved method. Approved method shall be determined by the Offices of Planning, Design and Construction or Engineering Services. Cable shall not lie on the ceiling grid. It will be run at right angles, north/south, east/west with drops into rooms being perpendicular to main cable bundles.

c. All plenum rated cabling run in standard type drywall construction will be run inside the wall in conduit which extends six inches above the top plate of the wall and exiting the wall through standard wall boxes and wall plate outlets. Bushings shall be installed at top of conduit to prevent damage to cable.

d. On walls constructed of solid concrete or cinder block, cables will be run in concealed conduit, surface wire mold or other approved raceway.

e. No ceiling tiles will be removed or holes punched out to accommodate cable penetration into a room.

f. All cabling will be labeled or tagged to indicate system served and owning department. Matching labels are required on both ends of the cable at every 50 feet on exposed runs or 25 feet on concealed runs, and at every entry/exit point throughout the run.

g. Cabling will be bundled neatly and well secured. It will not be secured to other cabling systems. It will not be secured to piping, piping supports or valves. It will not be wrapped around piping or conduit. Supports into concrete must be drilled, not driven in, to prevent cracking and dislodging of cable supports.

h. Cabling may be run or secured to a messenger cable system where cable trays are not available, using wall locks and clamps. Cable will not be installed with excessive slack so as to cause a safety hazard to personnel (not to exceed 6 inches) with support at horizontal runs not exceeding 4 feet.

i. Cables requiring crimp-on connectors must have those connectors attached with an appropriate and recommended specialized crimping tool.

j. Specific systems and sites require conduit as a component. Approval to eliminate conduit will be considered during the NCRF review process.

k. Provide suitable pull string in each empty conduit except sleeves and nipples.

l. Cable or conduit penetrating rated wall assemblies are required to secure the penetration with approved fire stopping material or by use of a designed and sealed fire stop sleeve assembly.