



### AT ISSUE: ▼



When large transformers with round cores are transported, they may be vulnerable to shipping damage. If a round core is not tightly clamped or secured, it has the potential to shift and be damaged during shipment. An isolated core--versus a solidly grounded core--is sometimes requested to enable testing to detect such damage.



### RECOMMENDATION: ▼

A better alternative for reliability as well as cost savings is to specify transformers designed with solidly grounded rectangular cores.



### RATIONALE: ▼



#### RELIABILITY

Cooper Power Systems manufactures a tightly clamped, solidly grounded rectangular core not prone to shipping damages. Cooper's rectangular cores use a single width of core steel. Competitors' round cores typically use about 12 widths of core steel, making it more difficult to hold the laminations in place.



#### FIRST COST

Isolating the core for on-site testing adds to the initial cost of the transformer. It requires mounting the ground lead in a place for convenient access, such as near a manhole or brought out of the tank through a bushing. In the first case, opening the tank via the manhole cover introduces the possibility of contamination, as well as the risk that the tank will not be tightly re-sealed after testing. In the latter case, the cost of the bushing increases the total transformer cost.



### THE BOTTOM LINE: ▼

Cooper's tightly clamped rectangular core is solidly mounted inside the transformer tank, and is highly resistant to damage or shifting during transport. Specifying Cooper rectangular cores eliminates the unnecessary added expense of core isolation provisions.

