



Fuels Safety Program	Ref. No.: FS-133-08	Rev. No.:
ADVISORY	Date: May 12, 2008	Date:

Subject: Maintenance vs. Modification and Upgrading
Sent to: Posted on Web-Site

Codes and regulations are not retroactive*; however, modified equipment requires re-approval of that feature being modified/upgraded provided the upgraded feature does not impact other components of the fuels equipment, the existing fuels equipment was installed in accordance with the code/regulations at the time of installation and the appliance operates in an acceptable condition. Normally, fuels equipment is considered modified when the combustion or safety system is changed.

For example:

1. Appliances are considered to be modified and shall be re-approved when:
 - 1.1. Fuel input changes in excess of plus or minus 20%
 - 1.2. New installations of relocated/moved equipment
 - 1.3. Gas supply pressure changes in excess of 20%
 - 1.4. Fuel is changed or new fuel is added to existing approved appliance
 - 1.5. Process temperature is increased to above existing high temperature limit setting.
 - 1.6. Sequence of operation or safety logic are modified

2. The following work on approved appliances is considered maintenance and shall not require re-approval but may be subject to inspection when:
 - 2.1. A flame relay is replaced so long as explicit instructions from the appliance OEM or flame relay manufacturer detailing replacement procedure and wiring are available and are followed.
 - 2.2. Existing components are replaced with multifunction components on valve trains
 - 2.3. Existing valve train components are replaced with components which provide equivalent functions and level of safety
 - 2.4. Additional/new limit(s) is added

When an appliance is maintained as described above, record of this modification shall be maintained on site and shall be forwarded to TSSA to update the relevant records. This record shall have the following information:

1. date
2. address
3. TSSA field approval label number
4. Name and certificate number of the individual performing the work
5. Description of the maintenance work including makes and models of replaced components

Rationale: Allows for equipment to be upgraded without upgrading entire system. This promotes an increase in safety rather than deterring it by the economics of upgrading the entire system.

Premise: The equipment was approved at the time of installation. Equipment that was not installed in accordance with the codes/regulations at the time of installation cannot be grandfathered.

* The only time new standards or codes become retroactive is when they are specifically identified in the regulations.

L:\FSSES\FIELDAPP\Industry Meeting\May 1, 2008\Maintanance-Upgrade Advisory - final.doc