or reduction in pressure will not be re-
quired unless considered necessary by
the marine inspector.
(d) When it becomes necessary to
rivet a patch to a furnace or other part
of the heating surface, the riveted
patch shall be placed on the waterside
of the plate in order not to form a
pocket in which sediment may collect.
(e) Furnace crowns which have be-
come distorted, not in excess of the
limitations provided in paragraph (c) of
this section, may be repaired by pump-
ing back the distorted section to as
nearly a true circle as possible and re-
inforcing the same by means of a ring,
arc- or gas-welded to the distorted cor-
rugation as shown in Figure 59.15–1, the
welding to be done by welders and
welding processors qualified in accord-
ance with part 57 of this subchapter
using acceptable welding electrodes in
accordance with § 57.02–4 of this sub-
chapter.

\[\text{FIGURE 59.15–1—APPROVED METHOD OF REINFORCING FURNACES BY MEANS OF ARC OR GAS WELDING}\]

§ 59.15–5 Stayed furnaces and combus-
tion chambers.
(a) Where the plate forming the walls
of stayed furnaces or combustion
chambers become bulged between
staybolts, repairs may be made by in-
serting an additional staybolt in the
center of such space supported by the
four staybolts.
(b) Where it is desired to rivet a
patch to the wall of a stayed furnace or
combustion chamber, the defective por-
tion of the plate shall be cut away
until solid material is reached, the
patch shall be riveted on the waterside,
and the staybolts renewed, and ex-
tended through the new plate.

§ 59.15–10 Bagged or blistered shell
plates.
(a) When the shell plates of cylin-
drical boilers which are exposed to the
radiant heat of the fire become bagged
or blistered, it shall be the duty of the
chief engineer in charge of the vessel
to notify the Officer in Charge, Marine
Inspection, for examination before
raising steam on the boiler.
(b) Where the shell plate is bagged
due to overheating, the Officer in
Charge, Marine Inspection, may, if in
his judgment it is practicable, permit
the same to be driven back to its origi-
nal position.
(c) Where the shell plate has blis-
tered, bagged, or bulged to such an ex-
tent that there is an appreciable
thinning of the plate, the Officer in
Charge, Marine Inspection, shall re-
quire the defective portion to be cut
away and the shell repaired by fitting a
patch of steel plate conforming to the