Title: Errata to correct misspelled word in para. 851.2.5(b)

Rationale: In the 2003-2016 Editions of the Code, the word “stress” was spelled correctly in the 4th sentence of para. 851.4.5(b). For no apparent reason, the Publishers misspelled this word in the 2018 Edition. This needs to be changed back to the way it was.
### Table 851.4.4-1 Wall Thickness for Unlikely Occurrence of Burn-Through

<table>
<thead>
<tr>
<th>psia (kPa)</th>
<th>0</th>
<th>5 (1.5)</th>
<th>10 (3.0)</th>
<th>20 (6.1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 (100)</td>
<td>0.320 in. (8.13 mm)</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>500 (3,450)</td>
<td>0.300 in. (7.62 mm)</td>
<td>0.270 in. (6.86 mm)</td>
<td>0.240 in. (6.10 mm)</td>
<td>0.205 in. (5.21 mm)</td>
</tr>
<tr>
<td>900 (6,200)</td>
<td>0.280 in. (7.11 mm)</td>
<td>0.235 in. (5.97 mm)</td>
<td>0.190 in. (4.83 mm)</td>
<td>0.150 in. (3.81 mm)</td>
</tr>
</tbody>
</table>

### 851.4.4 Permanent Field Repair of Leaks and Nonleaking Corroded Areas

(a) If feasible, the pipeline shall be taken out of service and repaired by cutting out a cylindrical piece of pipe and replacing with pipe of equal or greater design pressure.

(b) If it is not feasible to take the pipeline out of service, repairs shall be made by the installation of a full encirclement welded split sleeve, unless corrosion is repaired with deposited weld metal in accordance with (e) or unless a patch is chosen in accordance with (f). If nonleaking corrosion is repaired with a full encirclement welded split sleeve, the circumferential fillet welds are optional.

(c) If the leak is due to a corrosion pit, the repair may be made by the installation of a properly designed bolt-on leak clamp.

(d) A small leak may be repaired by welding a nipple over it to vent the gas while welding and then installing an appropriate fitting on the nipple.

(e) Small corroded areas may be repaired by filling them with deposited weld metal from low-hydrogen electrodes. The higher the pressure and the greater the flow rate, the lesser the chance of burn-through. At 20 V and 100 A, burn-through is unlikely to occur when the actual wall thicknesses exist, as shown in Table 851.4.4-1.

This method of repair should not be attempted on pipe that is thought to be susceptible to brittle fracture.

(f) Leaking or nonleaking corroded areas on pipe with a specified minimum yield strength of not more than 40,000 psi (276 MPa) may be repaired by using a steel plate patch with rounded corners and with dimensions not in excess of one-half the circumference of the pipe fillet welded over the pitted area. The repair plate design and fabrication details shall ensure that the pipeline design criteria are met. This method of repair should not be attempted on pipe that is thought to be susceptible to hydrogen cracking/brittle fracture.

(g) All repairs performed under (a) through (f) shall be tested and inspected as provided in para. 851.5.

### 851.4.5 Permanent Field Repair of Hydrogen Stress Cracking in Hard Spots and Stress Corrosion Cracking

(a) If feasible, the pipeline shall be taken out of service and repaired by cutting out a cylindrical piece of pipe and replacing with pipe of equal or greater design pressure.

(b) If it is not feasible to take the pipeline out of service, repairs shall be made by the installation of a full encirclement welded split sleeve. In the case of stress corrosion cracking, the fillet welds are optional.

If the fillet welds are made, pressurization of the sleeve is optional. The same applies to hydrogen stress cracking in hard spots, except that a flat hard spot shall be protected with a hardenable filler or by pressurization of a fillet-welded sleeve. Stress corrosion cracking may also be repaired per para. 851.4.2(c)(4), which describes repairs for stress corrosion cracking in dents.

(c) All repairs performed under (a) and (b) shall be tested and inspected as provided in para. 851.5.

### 851.5 Testing Repairs to Steel Pipelines or Mains

#### 851.5.1 Testing of Replacement Pipe Sections

When a (18) scheduled repair to a pipeline or main is made by cutting out the damaged portion of the pipe as a cylinder and replacing it with another section of pipe, the replacement section of pipe shall be subjected to a pressure test. The replacement section of pipe shall be tested to the pressure required for a new pipeline or main installed in the same location. The tests may be made on the pipe prior to installation, provided nondestructive tests meeting the requirements of section 826 are made on all field girth butt welds after installation. If the replacement is made under controlled fire conditions (gas in the pipeline), full encirclement pressure-containing type B, welded split sleeves (see ASME PCC-2) may be used to join the pipe sections instead of butt welds. All sleeve welds should be radiographed. (See para. 851.5.2.)

#### 851.5.2 Nondestructive Testing of Repairs, Gouges, Grooves, Dents, and Welds

If the defects are repaired by welding in accordance with the provisions of para. 851.4 and any of its subsections, the welding shall be examined in accordance with section 826.

#### 851.5.3 Leak Testing of Leak Repairs

In addition to (18) the requirements of paras. 851.5.1 and 851.5.2, repairs made to leaks shall be leak tested. The leak test shall be performed in accordance with Nonmandatory Appendix M, M-3(e), M-3(f), or M-3(g). The leak test pressure shall be at or above the maximum operating pressure available when the repair is placed back into service.

### 851.6 Pipeline Leak Records

Records shall be made covering all leaks discovered and repairs made. All pipeline breaks shall be reported in detail. These records along with leakage survey records, line patrol records, and other records relating to routine or unusual inspections shall be kept in the