3.3.1.2.2 Steady state a.c. induction

These tests should be carried out in accordance with § 2.3 b and equipment should operate during tests without significant increase of bit error rate.

3.3.1.3Immunity test against fast transients induced in the power feeding path

These tests may be carried out to ensure that the regenerator is sufficiently protected against transients occurring in the power feeding path.

These tests should be applied to equipment as indicated in Figure 6/K.17.

For testing a generator, according to IEC, Publication 801-4 should be used. At test voltages up to 1 kV the simulated signal transmission should not be disturbed severely. It is recommended to carry out this test, if the power feeding path is not sufficiently shielded and interferences due to switching in electric power systems may be expected.

3.3.2Acceptance tests

Only impulse tests will be carried out under conditions listed in column 2 of Table 2/K.17.

Tests 1 and 4 have to be performed taking into account the remarks given in § 1.4.

4.Add new point 3.3:

"3.3Test conditions for regenerators and power feeding sources used on optical fibre transmission systems

The following tests are applicable for all types of regenerators:

In principle two types of regenerators exist:

Regenerators with housings on floating potential and regenerators with housings connected to local earth. The regenerators may also be power-fed via separate d.c.-converters. Both alone standing units may be also considered as one "regenerator" with respect to this Recommendation."

3.3.1Prototype tests

3.3.1.1Impulse tests

These tests will be carried out under conditions listed in column 1 of Table 2/K.17.

Tests should be applied to equipment as indicated in Figure 5/K.17.

- Test 1 - Between terminals a and b of the power feeding path.

- Test 2 - Between terminal a of power feeding path and reference earth.

- Test 3 - Between terminal b of power feeding path and reference earth.

- Test 4 - Between both terminals a and b of power feeding path and reference earth.

Earth connections of housings with reference earth should be the same as used in practice.

3.3.1.2A.C. Tests

3.3.1.2.1 Short-term a.c. induction

These tests are carried out under conditions listed in Table 3/K.17.

Tests 1, 2, 3 and 4 should be applied to equipment as indicated in Figure 5/K.17 and explained in § 3.3.1.1.

Recommendation K.17

1.Amend Figure 1:

2.Point 2.1, after the description of Test 3, insert the following:

"- Test 1a between input terminals of the repeater and conductive housing normally connected to earth in the case of symmetric pair repeaters;

- Test 2a between output terminals of the repeater and conductive housing normally connected to earth in the case of symmetric pair repeaters.

Equipments protected with arresters and installed on symmetrical pair cables, which are induced by a.c. power or traction lines, can be tested with an alternating current, applied for 0.5 second. Current intensity and frequency are comparable to the alternating currents that are likely to be met with in practice, but should not exceed 10 A r.m.s."

3.Amend Figure 3 and Table 1: