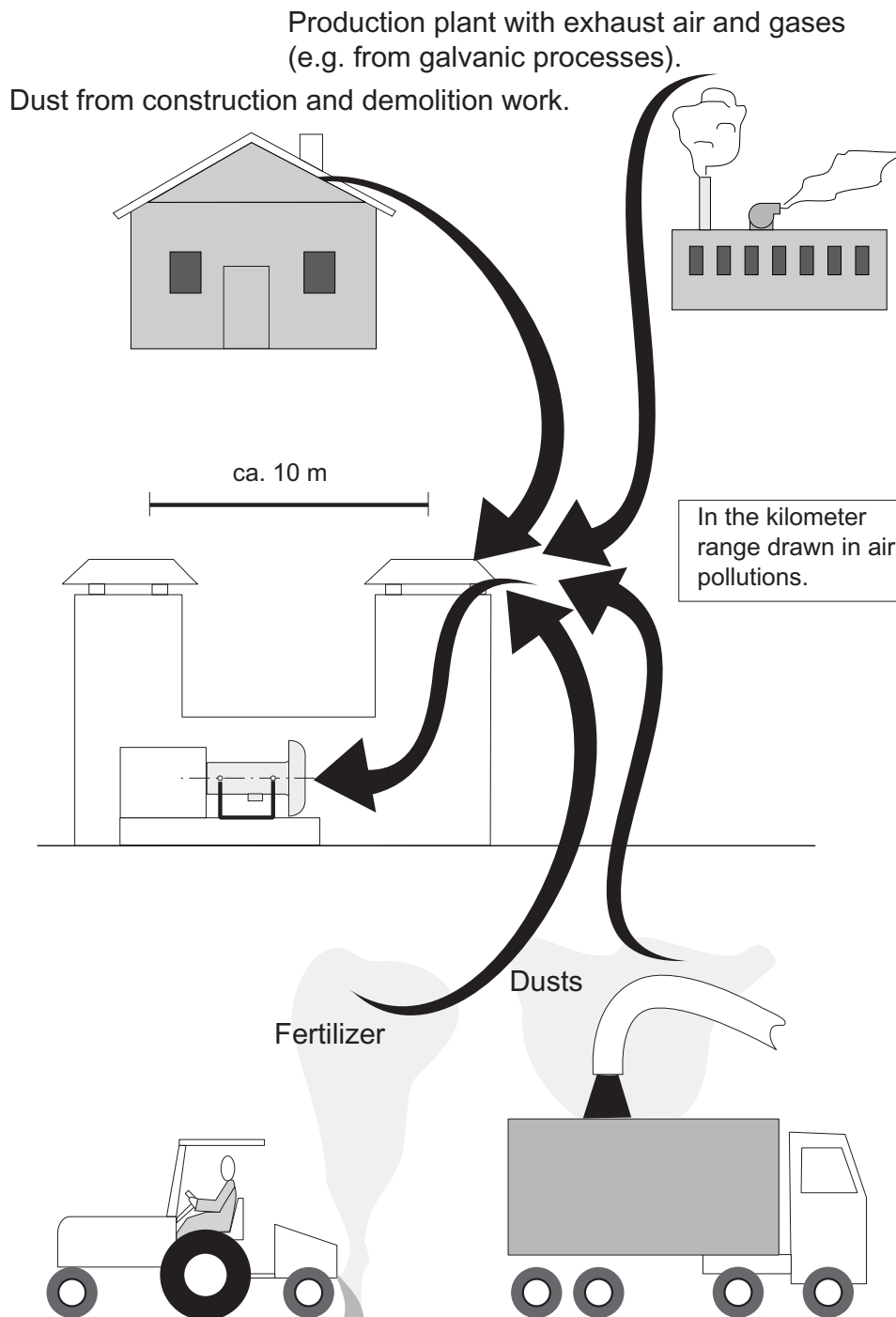
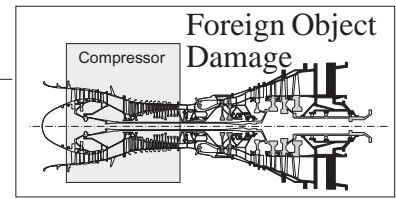


! Air pollutions even in farther distances are always to take earnest.

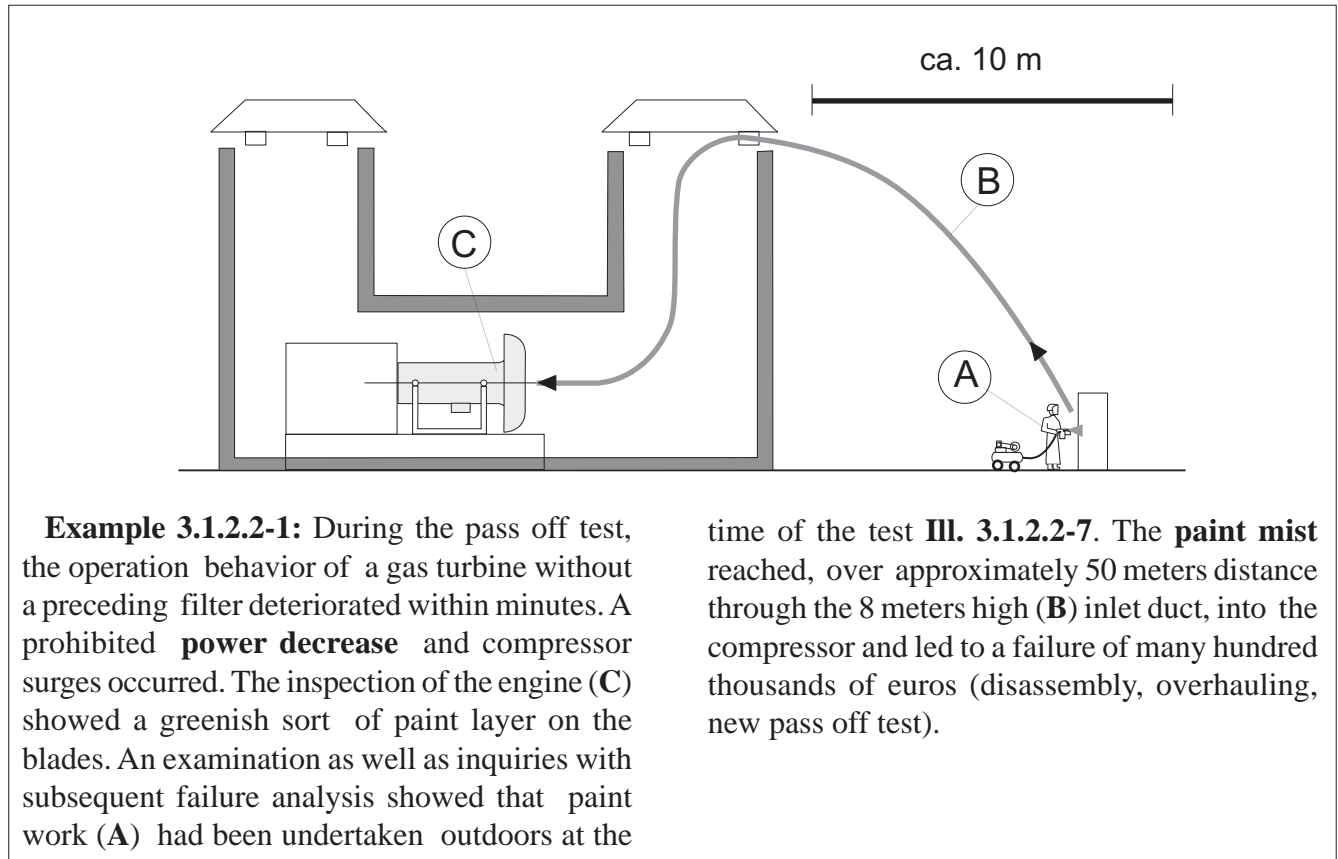


III. 3.1.2.2-1



III. 3.1.2.2-1: This case shall demonstrate the influence on a gas turbine by suction of gaseous media and dust, even over apparently safe distances. **Paint mist, process emissions and dust** by handling and loading in industrial zones and during building work as well as **spraying agents and fertilizer** in rural environment are typical examples for damage potent media. Gases and fine dusts will not be completely separated (Ill. 3.1.2.2-7).

Follow-up examinations of filter residues or deposits on the blading can give important details about the origin and the component specific potential harmfulness. This is of special importance for the review of the damage and specific remedies.



Example 3.1.2.2-1: During the pass off test, the operation behavior of a gas turbine without a preceding filter deteriorated within minutes. A prohibited **power decrease** and compressor surges occurred. The inspection of the engine (C) showed a greenish sort of paint layer on the blades. An examination as well as inquiries with subsequent failure analysis showed that paint work (A) had been undertaken outdoors at the

time of the test **III. 3.1.2.2-7**. The **paint mist** reached, over approximately 50 meters distance through the 8 meters high (B) inlet duct, into the compressor and led to a failure of many hundred thousands of euros (disassembly, overhauling, new pass off test).