such longer time period as may be granted under this proposal. A retrofit plan would need to be submitted to EPA as discussed in F.1 of this preamble and outlined in the proposed reporting requirements of this proposed rulemaking. Moreover, EPA is proposing that the owner or operator notify EPA of the failure within 30 days of the failed dynamic verification test.

To ensure that the leak repair work conducted on industrial process refrigeration equipment, where additional repair time has been granted, has been successful and that leaks have been brought to below 35 percent per year, parties to the settlement agreed that it is desirable and beneficial to perform leak checking tests after the owners or operators of the facility have completed the necessary work. The owners or operators of the industrial process refrigeration system will be relying on sound engineering judgment to determine the leak rate and to determine the type of leak tests to perform. With regard to this rulemaking, EPA proposes to interpret sound engineering or professional judgement to represent a combination of the use of logic and operational experience, with methods of calculation that are practical, based on training, experience and education. As mentioned above, EPA believes two types of tests should be conducted to ensure that the leak rates have been brought successfully below 35 percent per year—a static test and dynamic test.

EPÅ is proposing to define static tests as those tests that take place before the refrigeration system has been started again, in cases where the system has been shut down. A static test, with regard to the leak repairs that require the evacuation of the equipment or parts of the equipment, is a test conducted prior to the replacement of the full refrigerant charge and before the appliance or portion of the appliance has reached operation at normal working conditions of temperature and pressure. However, not all repairs require the evacuation of the system. Often, systems are not evacuated to perform repairs. For example, it is not necessary to evacuate the system to repair leaks for piping or tubing connections such as flanges, unions, flare fittings, and compression joints, leaks from gauges or control lines, leaks from valve packing, or leaks from tubes in the heat exchanger if the leak is at the tube sheet or the tube can be re-rolled or plugged. With respect to repairs conducted without the evacuation of the refrigerant charge or without a shutdown, a static test would mean a test conducted as soon as practical after

the conclusion of the repair work. In situations where a system has been evacuated, the system may not be brought back on-line until a static test indicates that the repairs undertaken have been successfully completed.

EPA is proposing to define a dynamic test as a leak test, performed using sound engineering judgment, that involves checking the repairs within 30 days of returning to steady-state operating characteristics, or where steady-state has been maintained, within 30 days after the repairs have been completed. Steady-state operating characteristics refer to the conditions present when operating at temperatures, pressures, fluid flows, speeds and other characteristics that would normally be expected for a given process load and ambient condition. Steady-state operating characteristics are marked by the absence of atypical conditions affecting the operation of the refrigeration system. Dynamic tests for equipment from which the refrigerant charge has been evacuated would mean a test conducted after the appliance or portion of the appliance has resumed operation at steady-state or normal operating conditions of temperature and pressure.

With respect to repairs conducted without evacuation of the refrigerant charge, dynamic tests would mean a reverification test conducted after the static test. Since the system was not evacuated, it would only be necessary to conclude any required changes in pressure, temperature or other conditions to return the system to a steady-state for operations. This test would be performed within 30 days of return to steady-state operation.

EPA is further considering an alternative of allowing the dynamic test to be conducted prior to achieving steady-state operations where the system was evacuated if reassembly and operation will make the testing more difficult and less reliable. In these circumstances the dynamic test could be conducted without resuming steadystate operations, but with a standard operation pressure or temperature for the appliance. EPA is also concerned about how to judge whether such a test actually is more reliable than a test conducted after the system has been completely returned to steady-state operations. Therefore, EPA is not proposing to allow for this type of dynamic test alternative, but requests comments on the need for such an alternative and under what conditions it would be reasonable to accept such an approach.

If the dynamic test indicates that the repairs have not been successfully

completed, the owner or operator of the system would be required to retrofit or replace the equipment within one year of the failure to verify that the repairs had been successfully completed or within such longer time period as may be granted under this proposal. A retrofit plan would need to be submitted to EPA as discussed in F.1 of this preamble and outlined in the proposed reporting requirements of this rule. In addition, EPA is proposing that the owner or operator notify the Agency of failure within 30 days of the failed dynamic verification test. The Agency believes that in most cases the industrial process facility will already be subject to the reporting requirements discussed in today's action, since most of these repairs will take longer than 30 days to complete. Therefore, this information will be reported as part of the requirements contained in the discussion for allowing more than 30 days to complete repairs. However, if there is a case where a failed dynamic test could in fact occur as part of a method of completing all repairs within 30 days, the industrial process facility would need to submit information as part of its submittal of a retrofit or replacement plan.

The above definitions of static and dynamic tests would allow the same test methodologies in certain circumstances to be categorized as both a static test or a dynamic test, depending upon when and under what conditions the tests are performed. Furthermore, this definition does not specify which type of static or dynamic test should be used under which circumstances. Due to the unique situations faced by each industrial process facility, EPA believes it is important for that decision to be based upon sound engineering or professional judgment. EPA requests comment on the proposed definitions of static and dynamic tests, including the need to perform a static test as soon as is practical after completing repairs, and the need to conduct a dynamic test within 30 days of returning to normal operating conditions. In addition, EPA requests comments on the associated recordkeeping and reporting requirements.

Below are examples of various test methods that EPA believes represent acceptable forms of static and dynamic tests. EPA wishes to clarify that other types of tests may exist. Today's proposal, however, does not identify any particular type of test that must be used. EPA requests comments on the appropriateness of these tests as well as others not specified in this proposal.