output from allowing moisture in headlamps over long periods. Koito claims that such headlamps perform adequately in Europe and Japan.

In 1991, the humidity test was changed as a result of a petition by Koito and Robert Bosch GmbH. The duration of the test was shortened from 20 consecutive 6-hour cycles to 24 consecutive 3-hour cycles; the photometric test immediately after the humidity test was deleted and other test details were changed. The sole remaining requirement was that ''the headlamp show no evidence of delamination or moisture, fogging or condensation visible without magnification.''

Now, Koito states that the requirement that no visible moisture be present inside the headlamp following the humidity test is a design restriction and that the criteria are excessively stringent ''design standards'' as opposed to ''performance standards.''

Koito also states that the present humidity test requirement causes it to design its headlamps with long vent tubes, which it states has increased the cost to the consumer. Koito furnished no data to support its claim of increased costs or burden.

Koito recommended that the new corrosion test set forth in Docket No. 93–57; Notice 2, (59 FR 59975 of November 21, 1994) be applied to lamps failing the humidity test. In that Notice of Proposed Rulemaking the agency proposed only for replaceable lens headlamps, to set forth additional requirements for headlamps that would have replaceable lenses. Such lamps would be designed not to corrode if the interiors were exposed briefly to the outside environment until such time that a lens replacement occurred (lens replacement is not now permitted). That lens replacement proposal had an additional chemical resistance test on the reflector, an additional 24-hour salt spray and 48-hour storage tests (all with the lens removed), and a cleaning test in accordance with the instructions supplied by the manufacturer with the headlamp. A final amendment to FMVSS No. 108 on this subject has not been issued yet.

In response to Koito's claims, NHTSA's technical review follows. Regarding the claim that headlamps that have visible moisture that are in use in Europe and Japan perform adequately, those regions have a greater preponderance of vehicle inspection performed than in the United States (U.S.) Timely headlamp replacement after failure is assisted by the routine inspection process. As a consequence, history has shown that the dominant cause of headlamp inspection failure and lamp replacement in Europe has been corroded reflectors. While it is possible that this situation may have changed, NHTSA is not aware of any change. The U.S. permitted replaceable bulb headlamps that are conceptually similar to those in Europe and Japan on the premise that headlamps introduced into the U.S. market would not exhibit the traditionally poor resistance to environmental degradation that had been typical of non-U.S. code headlamps. Additionally, because of the fewer and less thorough inspections in the U.S., there is the likelihood that lamps of reduced or failed performance would continue to be used on U.S. highways in greater numbers than in Europe or Japan. Thus, Koito's claim that adequate performance can be achieved by using lamps of non-U.S. market design is not substantiated.

Koito did not provide any data to show that headlamps would not eventually degrade over the life of the vehicle when they are occasionally or perpetually wet from moisture that is purposefully allowed to be in the interior of the lamp. The existence of visible moisture as an acceptable operational condition for headlamps is contrary to all State and Federal efforts to date to maintain a safe level of headlamp illumination performance, against a history of environmental degradation. It is difficult to accept that water in headlamps is not deleterious to headlamp performance; although, if lamp cost is no object, then it is conceivable that headlamps could be made to perform under such duress. NHTSA is not convinced that the public is ready to accept or understand that it is acceptable for water to be in certain headlamps and not be in others.

This is the second time that Koito has requested that the humidity requirements be amended to accommodate its needs. The last time was four years ago. While the present request is of a subtly different nature, the fact is that it is repetitive in nature: the humidity test prevents Koito from selling a design that cannot comply with the humidity requirements. NHTSA is not persuaded by Koito's claims that it is prevented from selling headlamps that have acceptable performance. The standard's requirements determine acceptable performance for the U.S. Unsubstantiated claims of real-world performance in some other region of the world, cannot be used as a basis for changing U.S. safety standards.

Koito claims that the present requirement is design restrictive and establishes a design and not a performance standard. The requirement is intended to address a headlamp's susceptibility to the ingress of moisture, which over the life of the lamp will cause deterioration of the lamp's photometric performance. The requirement is not solely for the purpose of testing in the instant the loss or failure of photometric performance as Koito believes. The test was never intended to simulate a lifetime of heating/cooling/dry/wet events that could occur with a lamp installed on a real vehicle. The test appears to discriminate well against lamps that are susceptible to the ingress of moisture, as evidenced by Koito's concern that traditional Japanese and European headlamp designs, susceptible to interior damage, cannot comply. While the test can be characterized as restrictive of certain headlamp designs, it is because those design cannot meet the performance demanded of them for passing the test. NHTSA does not view the requirement as a design standard, because the standard does not dictate to lamp manufacturers the design characteristics which they must choose. Manufacturers have complete freedom of design as long as the performance (not allowing moisture) is met.

Koito claims that the newly proposed corrosion test for headlamps that have removable lenses is an appropriate requirement for lamps to pass should they first fail the present humidity test. This is an incorrect application of that requirement. The newly proposed corrosion test is to address a headlamp's susceptibility to corrosion from the effects of having a broken lens. The exposure time due to a broken lens may vary widely case to case, but it is not continual for the life of the vehicle. This corrosion test is not an adequate requirement for headlamps that by their design could have very open interiors, as if they had broken lenses, over their entire existence. A very different and more stringent requirement would appear to be appropriate for such lamps. However, such a test would not determine lamps' susceptibility to condensing moisture that could disrupt photometry in the instant. Thus, it does not fulfill the safety need either.

In accordance with 49 CFR Part 552, this completes the agency's technical review of the petition. The agency has concluded that there is no reasonable possibility that the amendment requested by the petitioner would be issued at the conclusion of a rulemaking proceeding. The possible value of the requested amendment is particularly small in view of the petitioner's ability to build complying headlamps under the existing requirements and the lack of any inhibition in the standard against