# Proposed new title and scope for the next version of OP1.002

## TITLE

### Current Title

"For Optics and Electro-Optical Instruments – Optical Elements and Assemblies – Appearance Imperfections".

### Proposed Title

"Surface, Edge, and Cementing Imperfections of Optical Components".

### Review and Rationale

In discussions during the past year, it was concluded, at least temporarily, that two aspects of the title are misleading or inappropriate.

Firstly, we don't want to include assemblies in this standard. We realized that verification of imperfections in an assembly demands a much more complicated approach than we have bargained for. Additionally, to some people, a cemented doublet is a component, to others, it is an assembly. We would like to treat any number of cemented singlets as one component for final inspection.

Secondly, we don't want to limit the scope of this standard to imperfections which are controlled on the basis of their appearance. We want to extend the standard to clearly include dimensional specification; and we want to clearly separate visibility and dimensional methods of specification and verification.

## SCOPE

### Current Scope

This standard establishes uniform practices for stating, interpreting, and inspecting surface imperfections for transmissive and reflective optical elements and assemblies. This standard provides two alternative notations for specifying surface imperfections. A numerical notation indicates the allowable visibility of surface imperfections under specific viewing conditions. An alphabetic notation indicates the allowable size of surface imperfections. It is the responsibility of the optical engineer to choose which notation to use. This standard does not address the impact of imperfections on element or system performance.

**Proposed Scope**

This standard defines terms, concepts, notation, and inspection methods used to specify and verify acceptable levels of surface, edge, and cementing imperfections of individual optical components.

**Review and Rationale**

In general, I prefer shorter, rather than longer, statements of scope. The sense of the committee during the last meeting was to capture the basic intent of the standard and to avoid the problem of assemblies.

I don’t think that it is necessary to add a statement that explicitly removes assemblies from the scope. There are many, many aspects of optical engineering that are also not covered by this particular standard; we don’t have to list them.

Instead, by using the term “optical components” at the end of the scope, and with the use of the same phrase, “optical components”, in the title, we have clearly and positively defined the limit of the scope of this standard.

We can, and probably should, define “optical component” in the body of the standard. An optical component can be refractive, reflective, even diffractive. It can even be passive, like a lens, or active, like a pockels cell or a laser rod.