

API Recommended Practice 584

Integrity Operating Windows

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The purpose of this recommended practice (RP) is to explain the importance of integrity operating windows (IOW's) for process safety management and to guide users in how to establish and implement an IOW program for refining and petrochemical process facilities for the express purpose of avoiding unexpected equipment degradation that could lead to loss of containment. It is not the intent of this document to provide a complete list of specific IOW's or operating variables that might need IOW's for the numerous types of hydrocarbon process units in the industry (though some generic examples are provided in the text and in Annex A); but rather to provide the user with information and guidance on the work process for development and implementation of IOW's to help strengthen the Mechanical Integrity (MI) program for each process unit.

The scope of this standard includes:

- definitions of IOW's and related terminology;
- creating and establishing IOW's;
- data and information typically needed to establish IOW's;
- descriptions of the various types of IOW's needed for process units;
- risk ranking IOW's;
- documenting and implementing IOW's;
- monitoring and measuring process variables within established IOW's;
- communication of IOW exceedances;
- reviewing, changing, and updating IOW's;
- integrating IOW's with other risk management practices;
- roles and responsibilities in the IOW work process; and
- knowledge transfer to affected personnel.

This RP outlines the essential elements in defining, monitoring and maintaining IOW's as a vital component of integrity management (materials degradation control) and assisting in the inspection planning process, including Risk Based Inspection (RBI). Other Process Safety systems may be affected by or involved with the IOW program, including management of change (MOC), process safety information (PSI), and training. For purposes of this RP, these systems are only addressed to the extent of mentioning the integration aspects that are needed with the IOW program.

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