The American Society of Mechanical Engineers
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New York, NY 10016-5990

Dear Reviewer,

It is the intent of the ASME Publications Committee to present and publish technical papers of high quality. To achieve this end, thorough and critical reviews are being requested from you and others who are competent and knowledgable.

The Papers Review Committee requests your assistance in evaluating the enclosed manuscript. Your opinions will be held in confidence, and your efforts will contribute greatly toward maintaining the high quality required of ASME Technical Division papers. If you cannot review this paper by the date indicated on page 3, please return it to me immediately.

Papers Review Chairman

THE REVIEW PROCESS

Prior to presentation all papers for national ASME meetings and division conferences should be reviewed by competent specialists selected by the program-making agencies. The purpose of review is to determine whether a paper is acceptable for publication, needs revision, or should be rejected. Recommendations must be supported by specific and critical comments. Reviewing is a confidential process involving only the reviewer, program-making agency, and the editorial department.

Papers recommended for PAMPHLET or BOUND VOLUME publication should be of high quality and of current technical interest.

Papers recommended for publication in the ASME TRANSACTIONS JOURNALS must be of high quality and have permanent interest value.

If rejection is recommended, keep in mind that you should state reasons in a professionally appropriate manner.

REVIEWING TECHNICAL PAPERS

Reviewing technical papers is an intellectual process that includes both subjective and objective elements. The reviewer must eliminate any personal bias toward the author or the subject matter. At the same time, the paper must be evaluated in terms of the reviewer's own experience in and knowledge of a specialized technical field. This involves more than checking a list of possible impressions, for the reviewer will almost always have some reactions that cannot be anticipated in a formal review form.

This Review Form has been designed to enable the reviewer to evaluate the merits of the paper and fit the evaluation into recommendations conforming with ASME practices of technical paper presentation and publication.

DEFINITIONS RELATING TO PUBLICATION

Prior publication refers to the reproduction and distribution of a paper in a manner such that it has been made available to the engineering profession and can be obtained in the normal process of a literature search.

An **acceptable technical paper** is one that is technically sound, free from personalities and bias (especially of a commercial nature), one in which the author supplies information never before published in a form readily available to the public, or adds a new concept or development to existing technical knowledge. The definition should be construed to include comprehensive reviews to past and present engineering practice.

Unacceptable technical papers are those having an obvious sales approach to technical problems, those based upon fallacious or dubious engineering analysis, and those whose approach is superficially descriptive of widely accepted engineering practice.

A **review paper** is one in which an author surveys a specific subject or technical area and brings together relevant published information in such a manner that the reader may readily become familiar with the state of the art at the time the review was prepared. Alternately, such a paper may present information from unfamiliar fields of science and from other engineering specialties.
A review must relate itself through bibliographical references to pertinent technical literature.

DEFINITIONS OF CHARACTERISTICS TO BE EVALUATED

Originality is a measure of the creativity or inventiveness of the author. That which has never before been accomplished is obviously original. In the review process, however, originality must be interpreted not only in the sense of a new physical creation, but must include such items as new concepts, techniques, or methods. It describes the work of one whose creativity has given rise to a new concept; it is applicable to the analyst who through the generation of new analytical techniques or through an unusual application of classical techniques, obtains solutions to engineering problems: it describes the inventiveness of an experimentalist in the design, construction, and use of novel and unique equipment to obtain data not previously available. Originality then, is an attribute of the author's work that is earned by the specific contribution to the appropriate field. Originality is a standard by which the author's work will be known. The measure of originality of the reported work will be determined by the reviewer and will be based on what is known of past and current developments in the specific field.

The **significance of the reported work** may be difficult to appraise. What is considered to be of little significance today may be very significant in future years. As we read a manuscript, however, either consciously or unconsciously, we do measure the significance of the material. This evaluation, either subtle or planned, is made in the light of what we know about the subject matter. It is normal to ask the questions, "Why was this work done?'' and "What is the significance of the work as it relates to a particular technical field?'' The reviewer is held to be an expert — it is the reviewer's responsibility to make a subjective evaluation of the importance or worth of the reported work. The reviewer must judge the merit or value of another's contribution.

The **completeness of the reported work** refers to the one-ness or wholeness of the work. In this usage, the reported work should be marked by a unity and continuity of parts and show an interdependence between these parts. As an example, an experimental program would be marked by a concept or phenomenon that was to be investigated; the formulation of an experiment; the design, buildup, and check-out of experimental equipment; the running of the test; the gathering and interpretation of data, and the establishment of conclusions. Each of these parts has a completeness of its own and yet there is an interdependence between them — no part can be missing without destroying, to a certain extent, the integrity of the entire work. The reported work should exhibit a level of accomplishment that comes from thoughtful and scholarly efforts by the author. Completeness is not a concern about the content of the text; it is a rating of the author's ability to formulate and pursue a technical program at a professional level.

Acknowledgment of the work of others by references is to be expected in a well-prepared technical paper. Such recognition is not merely a courtesy, it is a valued content showing how the current work is related to work already accomplished. The references should be both adequate in number and accurate in content. Such a documentation shows the author's familiarity with the work of others and also serves as an aid to the reader, who may desire to learn more of the subject being discussed. It is obviously not necessary or appropriate to reference all known works, but a judicious choice of pertinent papers should be given.

The **organization of the paper** is extremely important if the reader is to understand the work of the author. Ideas are most effectively communicated when there is a carefully planned and logical structure in the manuscript. ASME provides specific criteria on the organization of a paper. Some of these items are outlined briefly below.

Title	Brief, descriptive
Abstract	Clear indication of object, scope, and results
Body of Paper	Logical organization, purpose, description of problem, means of solution, results, and conclusions
Symbols	Recommended symbols used; usually symbols adequately defined; SI units required
Bibliography	Footnotes if only four or five references; otherwise listed at end of paper
Illustration	Clear black and white prints of all line drawings, graphs, and photographs. Graphs should be free of all nonessential lines and lettering; coordinate rulings should be limited in number
Length	Should not exceed 6000 words (6 printed pages in a Journal) or equivalent
Style	The paper should be well written, conform to recognized standards of literary style, and be readily understandable to engineers in the field of interest of the paper.

Clarity in writing, tables, graphs, and illustrations cannot be overemphasized. A technical article is written to convey ideas to the reader and this end will only be achieved when the author uses the right choice of words, effective sentence structure, correct spelling and punctuation, and paragraphing. The author must also show accuracy and skill in the use of formulae, graphs, and diagrams since these exist to complement the written text. The author should submit all tables, graphs, and illustrations in a form that can be easily interpreted by the reviewer.

DEFINITIONS OF QUALITY RATINGS

The quality rating scale encompasses a range of evaluations from "poor'' to "honors'' quality.

There are very few technical papers whose characteristics will merit the rating of **honors quality**. Even fewer papers will warrant such a rating over their entire profile. Such a paper would be comparable to those that are awarded ASME national honors. They will be recognized on the basis of outstanding writing quality and a high degree of originality, and they will constitute an unusual contribution to the science of engineering.

The rating of **good** indicates very acceptable levels of accomplishment. A paper with profile components rated at this level would be presentable at an ASME meeting and meet the requirements for publication in an ASME journal.

Acceptable and **marginal** quality will be considered from a subjective viewpoint since the concept of acceptability will vary with each reviewer. Reviewers should, however, evaluate a paper or its profile in a realistic way in terms of generally accepted standards. The basis of the evaluation must be the reviewer's own professional experience and the knowledge of the technical literature. A rating of marginal is below the acceptable standards for publications in an ASME Transactions Journal and appropriate comments should be made to assist the author in revising the manuscript.

Papers with ratings of **poor** encompass defects previously mentioned in the definition of unacceptable technical papers. Such papers will include excessive commercialism, fallacious analysis, or repetitive description of conventional engineering practices.

PAPER REVIEW EVALUATION SHEET

An ASME paper should be: Clear, concise, complete, and original; with assumptions plainly identified; data and computation results presented with their uncertainty, precise logic, relevance to practice described, and with actual accomplishments of the work plainly stated and honestly appraised.

Paper No. _____ Reviewer _____ Date _____

Title _____

Author(s) _____

Submitted for _____ Meeting Date _____

Please complete review by:

_____

Please return this manuscript immediately if you cannot complete the review by the indicated date.

PAPER PROFILE

Place a check in the boxes which, in your opinion, best describe the following features of the manuscript.

	* Poor	* Marginal	Acceptable	Good	* Honor
Originality of Work	r	r	r	r	r
Engineering Relevance	r	r	r	r	r
Scientific Relevance	r	r	r	r	r
Completeness of the Reported Work	r	r	r	r	r
Acknowledgment of the Work of Others by References	r	r	r	r	r
Organization of the Work	r	r	r	r	r
Clarity in Writing, Tables, Graphs, and Illustrations	r	r	r	r	r

	Yes	No
In your opinion, is the technical treatment plausible and free of technical errors?	r	r
Have you checked the equations?	r	r
Are you aware of prior publication or presentation of this work?	r	r
Is the work free of commercialism?	r	r
Is the paper too long?	r	r

YOUR RECOMMENDATION

For publication as a: (check only one place)

_____ ASME Transactions Journal article
_____ Technical Brief in ASME Transactions Journal
_____ feature article in Mechanical Engineering (broad and current interest to the profession)
_____ individual technical pamphlet paper
_____ bound volume paper

This paper is: (check only one place)

_____ honors quality*
_____ acceptable
_____ acceptable with minor revisions*
_____ acceptable with major revisions* (review required after revision)
_____ NOT ACCEPTABLE*

*please justify on reverse side

Return Review to:

Name _____ Reviewer's Signature _____

Address _____ Date _____

City / State / Zip _____

Phone _____ Fax _____ E-mail _____

PLEASE COMPLETE THE REVIEW FORM AND KEEP A COPY FOR YOUR RECORDS

To assist the author in revising the paper please separate your remarks into two clearly identified sections.

(1) Those suggestions which, in your opinion, would improve the quality of the paper but are not essential for publication, and

(2) Changes which should be made before publication

Remarks that are not clearly identified will be assumed to fall into the first category.

SUGGESTED DISCUSSERS

(List names and addresses of potential discussers. The reviewer is encouraged to include his/her name.)