

Instructions and Suggestions for Reviewing of Manuscripts for the *Welding Journal Research Supplement*

1.0 Introduction:

- 1.1 The *Welding Journal* is published by the American Welding Society to advance the science, technology and application of welding and allied joining and cutting processes worldwide including brazing, soldering and thermal spraying.
- 1.2 The *Welding Journal Research Supplement (WJRS)* is a component of the *Welding Journal* aimed at publishing high-quality papers related to novel research and innovative industrial advancements on the topics listed in section 1.3 below.
- 1.3 Manuscripts topics that are appropriate for *WJRS* include but are not limited to the following areas as they relate to welding and processes involving materials joining: materials, welding metallurgy, weldability, performance of welded structures including creep, fatigue, and corrosion, design of structures, design of power supplies or equipment, processes including additive manufacturing, sensing and control, robotics, modeling, maintenance, health and safety, human factors, or related subjects. Manuscripts on development activities for production applications that purely apply existing knowledge may typically be too narrow in scope and do not normally meet the criteria sought for publications in *WJRS*.
- 1.4 Manuscripts submitted to *WJRS* undergo a peer review process, as briefly summarized in Section 9 of the Authors' Submission Guidelines. Therefore, authors should pay careful attention to detail, particularly with the content in the Introduction, Experimental Procedure and Discussion sections of the manuscript. Manuscripts submitted to *WJRS* that do not meet the requirements described in that guideline will be rejected or returned to the authors for revision.
- 1.5 The service the reviewers provide greatly enhances the quality and reputation of technical papers published in the *WJRS*. It is an essential service in the progress of the welding and joining industry. It ensures that a broad spectrum of engineers, designers, product managers, researchers, and scientists can stay abreast of the latest knowledge in our field.
- 1.6 Manuscripts submitted to *WJRS* should be written clearly. Manuscripts may be rejected because of poor writing quality (see 2.4.12 below). Based on the technical merit of the paper, reviewer should encourage authors to seek help from colleagues who are proficient in English to meet the writing criteria.

2.0 Responsibilities of the Individual Reviewers

- 2.1 The Individual Reviewer (IR) is one of at least two (sometimes three) people that are selected by the Lead Principal Reviewer (LPR) to conduct a formal evaluation of the manuscript. These individuals are selected by the LPR based on the expertise shown in their profile. The areas of expertise are selected by each IR when they create or update their profile in the *WJRS* reviewer database. These areas of expertise can be modified at any time to reflect the preferences of each

reviewer, and should be revised periodically to ensure that they are current. Updating allows a better match between reviewer expertise and technical content of a manuscript to review.

- 2.2 When the LPR receives a new submission, he/she typically prescreens the manuscript. If, after careful review, the LPR feels that the manuscript is not acceptable for publication in the *WJRS*, the manuscript will be rejected with a brief review provided to the authors. Possible reasons for rejection may include: a) the technical content of the manuscript is insufficient/inappropriate for publication in the *WJRS*, b) the manuscript is so poorly written that it is not ready for a proper constructive review, c) figures, illustrations are so poor that the manuscript cannot be properly reviewed. The LPR may choose to recommend the paper be published elsewhere, or may simply reject the paper. In these cases, IRs will not be assigned.
- 2.3 If the manuscript passes the initial review by the LPR, IRs are then assigned to provide thorough, comprehensive reviews. IRs are invited via email with a link to the system to evaluate the manuscript. Before accepting, the IR should briefly scan the abstract, conclusions and figures, as a minimum. In assigning manuscripts to specific IRs, the LPR(s) make every effort to ensure a close correspondence between the reviewers' background and the manuscript topic area. However, there are times when this approach is not possible due to lack of availability of a better qualified reviewer, for example. Consequently, there may be occasions when more experienced reviewers may be asked to review a manuscript that is not a close match with their background. When the article is accepted for review, there will be a time of thirty (30) calendar days to complete the review from the date of invitation. We request the review for revised manuscripts to be completed within fourteen (14) calendar days from the invitation.
- 2.4 The IR should read and critically evaluate the entire manuscript, and should provide responses to two sets of questions outlined in sections 2.5 and 2.6.
 - 2.4.1 The same questions shown in section 2.5 are also found on the *WJRS* Editorial Manager review website. The goal of this set of questions is to allow the LPR to evaluate the depth and quality of the IR's review itself to permit a sound final decision for publication or rejection. The reviewer will be required to answer these same questions to evaluate the manuscript on the review website using a grading scale of 0 to 10.
 - 2.4.2 Additional questions are also provided in section 2.6. The intent of these questions is to guide the reviewer in terms of the written feedback to the authors in the comments box of the on the review website. Note that these questions will not be found on the review website.

2.5 Questions to be Answered on the *WJRS* Editorial Manager Review Website

The questions outlined below will also be found on the in the *WJRS* Editorial Manager review website. Most of the questions outlined below correspond directly to and occur in the same order as the instructions given in the Authors' Guidelines document found on the submission/review website. IRs should answer all questions on the review website based on a scale of 0 to 10, with 5 being an average score.

There is also a choice for N/A if it is justified. Questions receiving a score of ≤ 7 will require the IR to provide brief comments in the box below the question. Comments can also be added for higher scores if desired.

Note that the total score from these questions is not intended for making the final decision by the IRs since: a) answers to the questions in section 2.6 must also be considered in the decision, and b) some of the questions here relate to the IRs performance during the review.

2.5.1 *How much of the work presented in the manuscript was new compared to prior work by the same authors? How extensive were your efforts to search for recent publications by the authors on the same topic as the current submission?*

Authors have been known to submit multiple versions of their manuscripts with large overlaps in content and text to more than one journal. Publication in the *WJRS* requires assignment of copyrights to AWS, and the review process does not include software to search for plagiarized text passages. Please check for publication of similar documents by the author's group by searching Google Scholar or Web of Science, for example (others may be used also). Please include any findings of overlap/redundancy in grading on the review website and in your written review. Please also comment on your efforts to complete this task.

2.5.2 *How novel, new or innovative is the work described in this manuscript? How substantial a contribution will the manuscript make to the body of literature if published?*

As described in the Authors' Guidelines document on the submission website, the *WJRS* aims at publishing high-quality papers related to novel research and innovative industrial advancements on the topics listed in section 1.3. Based on your experience, please evaluate the novelty and innovation of the manuscript relative to the topic, experiments/modeling efforts and/or analysis in grading on the review website and in your written review. Please note that plagiarism of work published previously is strictly forbidden. Reviewers may wish to use a search engine to help in answering this question.

2.5.3 *To what extent does the Introduction Section of the manuscript provide the background necessary to understand the problem and the rest of the manuscript, including a pertinent literature review?*

Detailed instructions on how to construct the Introduction Section are provided in the Authors' Guidelines document. Please evaluate the extent to which the authors have followed the instructions. It is not uncommon for authors to provide literature reviews for only recent papers found with a quick online search, and overlook foundational papers on the topic of the current

manuscript. It is also not uncommon for authors to include references that are not really pertinent to the topic area. Finally and most importantly, the introduction section should culminate in identifying a technical gap that the manuscript will address or fulfill. Please also evaluate the completeness and relevance of the literature review.

2.5.4 *To what extent does the Procedures section of the manuscript provide the pertinent information sufficient to allow others to repeat experiments or modeling efforts? How well do the authors understand the area of study?*

Reviewers need to check if the manuscript clearly demonstrates that the procedures/experiments were properly designed in accordance with the goal of the manuscript/work. Authors are also expected to know what information must be reported in the Procedures section to allow others to repeat experiments or modeling efforts. It is not uncommon that authors are relatively inexperienced in the area of welding and do not provide complete information. Moreover, their inexperience can sometimes lead to authors to misinterpret or embellish their results. The authors competence can often be evaluated by how the Procedures section is written. Please evaluate the completeness and quality of the Procedures section.

2.5.5 *How substantive is the Discussion section of the manuscript? In other words, how completely do the authors explain their results in terms of proving their conclusions?*

In the Authors' Guidelines document, authors are instructed on the importance of providing a substantive discussion of their results. Failure to provide valid interpretations of results based on sound scientific principles provides justification for rejection of the manuscript. Please evaluate the quality and depth of the Discussion section.

2.5.6 *To what extent do the discussion and data provide proof to justify the conclusions? Do the authors make claims that are not substantiated by the work in the current manuscript or by prior work by others or the current authors?*

In the Authors' Guidelines document, authors are cautioned to avoid strongly declarative statements that are not substantiated by current work alone or in combination with prior work by the authors or other researchers. It is not uncommon for authors to make claims, maybe even correct claims, that are not justified by the work in their current manuscript. Please evaluate how well the results and discussion justify the conclusions.

2.5.7 *In the event that any of the important results or claims depend on prior work published by others or by the current authors, how extensive were your efforts to find and review these publications to corroborate the claims?*

Occasionally, inexperienced authors or authors of poor-quality manuscripts will claim their results or conclusions, perhaps questionable, are valid based upon findings that have been published previously. More-over, it is not uncommon for authors to selectively pick a single statement in a published paper to validate their results. If reviewers question results or conclusions that authors justify based on prior publications, reviewers should check the prior publications to ensure for validity. Note that prior publication does not guarantee that all statements in a paper are correct or valid. When authors make such claims, please evaluate their validity.

2.5.8 *How well are statistics applied to the results when pertinent?*

In the Authors' Guidelines document, authors are instructed to provide appropriate statistical analysis of their data when applicable, including the use of error bars and statements of how many replicates were performed in experiments. Please evaluate how well the authors applied statistics *when applicable*.

2.5.9 *How extensive were your efforts to check any equations presented in the manuscript, including units?*

Reviewers are expected to evaluate all components of the manuscript, including equations. Please comment on the level of effort expended to check all equations for correctness.

2.5.10 *How complete are the citations to important references? In your view, are all pertinent references cited? Does the literature review contain all of the foundational references on the topic, or does the review cover only recent references found in a quick web review?*

In the Authors' Guidelines document, authors are instructed to give credit to prior efforts on similar research by referencing seminal papers on the topic area of the manuscript. It is not uncommon for authors to submit an incomplete literature review that does not recognize key prior research. This kind of omission may result in repetition of previously published work obviating the novelty of the current manuscript. Please evaluate the completeness of the literature review.

2.5.11 *How comfortable and confident are you with the completeness and accuracy of your review?*

Reviewers are expected to provide a thorough review of the manuscript. All efforts are made by the LPR(s) to assign manuscripts to reviewers with background in the topic area relevant to the manuscript. However, there are occasions where optimal matching may not be possible due to reviewer availability. Moreover, reviewers may have limited time to perform the review. In this case, reviewers should request more time from the LPR or designated Review Editor when applicable. Please evaluate your level of comfort with your review.

2.5.12 *Please evaluate the English grammar, syntax and terminology used in the manuscript and whether it allows for proper interpretation of technical points?*

Manuscripts are often written by authors whose first language is not English. Nonetheless, authors are responsible for providing manuscripts that can be understood by reviewers. Sometimes the ideas are expressed in a clumsy manner, but the technical points can be understood. In other cases, the ideas are written so poorly that the technical points are not clear. Please comment on how well the manuscript is written to allow proper interpretation of technical points.

2.6 Additional Questions

These questions are provided to guide the reviewer in terms of the written feedback to the authors in the comments box of the on the review website. (Refer also to Section 3 below for more details on the content of the comments).

2.6.1 *Does the manuscript follow the recommended layout?*

Manuscripts submitted to the *WJRS* should follow the structure outlined in the *WJRS* Author's Guideline. Reviewers are encouraged to become familiar with the Author's Guideline so that they understand the layout. If the layout has not been followed, please note this point in the reviewer's comments. For instance, the Abstract should not exceed 200 words, and the Results and Discussion should typically be two separate sections, and the content within each section should reflect so. If Results and Discussion are combined, reviewers must ensure that (a) authors clearly distinguish between clear-cut results and the interpretation and analysis appropriate for discussion; and (b) that strongly worded declarative statements have appropriate substantiation in the data. Combination of Results and Discussion alone should not be a cause for rejection. However, a manuscript that does not comply with the Author's Guideline should be amended via a decision for Mandatory Revisions.

2.6.2 *Has the major technical challenge/focus of the paper been clearly identified and well described?*

If the reviewer answers no, the manuscript may be rejected. If the challenge/focus is not clearly identified or well described, the reasons should be noted in the reviews and a mandatory revision decision should be given.

2.6.3 *Has the state-of-the-art been well described and analyzed? In other words, does the state-of-the-art analysis effectively contribute to the identification of the major technical challenge?*

If the reviewer answers no, the manuscript may be rejected. If not clear, the reasons should be noted in the reviews and a mandatory revision decision should be given.

2.6.4 *Has the proposed method(s) to solve the technical challenge been clearly described/presented?*

If the reviewer answers no, the manuscript may be rejected. If not clear, the reasons should be noted in the reviews and a mandatory revision decision should be given.

2.6.5 *Is (Are) the proposed method(s) / experimental procedure(s) to solve the technical challenge appropriate for the nature of the problem or challenge?*

As an example (there are many more examples), if the authors claim to use X-Ray Energy Dispersion Spectroscopy (EDS) only to identify phases within a microstructure, the reviewer must challenge these claims. EDS is a semi-quantitative technique used to measure composition. EDS results may be used by authors to infer the presence of a given phase (by saying the composition is consistent with the presence of the ABC phase), but they cannot be identified unambiguously on the basis of EDS alone. Diffraction techniques (EBSD, XRD or neutron diffraction) must be used in conjunction with composition to determine crystal structure and correctly identify phases. If the reviewer answers no, the manuscript may be rejected. If not clear, the reasons should be noted in the reviews and a mandatory revision decision should be given.

2.6.6 *Are the results clearly presented and analyzed?*

If the reviewer answers no, the manuscript may be rejected. If not clear, the reasons should be noted in the reviews and a mandatory revision decision should be given. However, if the reviewer disagrees with the author, but the author provides valid supporting material for their work (e.g., experimental, references from others), this point should not be cause for rejection.

2.6.7 *Is the analysis of the results sound and adequate?*

A good example involves appropriate statistical analysis of data (standard deviations, error bars on plots, R^2 , etc.). The lack of statistical results should be noted in the review and corrected through revision by the authors. If the reviewer answers no, the manuscript may be rejected. If not clear, the reasons should be noted in the reviews and a mandatory revision decision should be given.

2.6.8 *Does the work constitute a significant contribution to the field?*

A marginal increment over work previously done by others is sufficient cause for rejection. If the reviewer answers no, the manuscript may be rejected. If not clear, the reasons should be noted in the reviews and a mandatory revision decision should be given.

2.6.9 *Do you believe that the manuscript would be cited by others?*

The *WJRS* is looking for publications that can be referenced by others as this positively affects the impact factor of the Journal.

2.6.10 *Does the manuscript have overall technical merit for publication?*

This question may be best answered by looking at the Abstract and Conclusion sections after having read the whole manuscript. The abstract should reflect the objective of the work, how it was done, and the key findings. If after having read the whole article, the Abstract does not appear to represent the IR's understanding of the research, the point should be noted in the review with a written comment. Rejection may also be appropriate in this situation.

Moreover, the conclusions should be concise statements of major contributions in the presented research. *Conclusions are derived by critical analysis and discussion of reported results rather than a summary of observations.* Stating only results in the Conclusions section is considered insufficient for acceptance and a direct cause for rejection. Authors must define fundamental and applicable aspects, and significance of results in their conclusions. The IR should ensure that the proposed conclusions are technically supported by the results and discussion presented in the manuscript. Manuscripts containing conclusions that are solely based on results of others and/or on discussion of work published by others will most probably be rejected or returned for revision.

2.6.11 *Has the manuscript been well written in terms of grammar, spelling, and commonly used research terminology?*

This question is related to a prior question. The *WJRS* is an international publication read globally. As such, many authors from all over the world have interest in their work being published in the *WJRS*. Many research works submitted for review are from countries whose primary language is not English. Although the technical content is of paramount importance for acceptance, a poorly written manuscript with novel ideas and conclusions cannot be accepted for publication, and therefore, must be rejected or subject to a Mandatory Revision. This language deficiency should be stated on the reviews so that the authors can proceed to seek help by third party commercial editorial services to correct the article. The *WJRS* is not currently staffed to provide such services. Also, if the language or terminology is incorrect, this may make the review process challenging for the reviewer and therefore, no assumptions on what the authors meant should be made until the article has been re-written in proper English for another review, if the technical merits dictate so.

3.0 Expectations of the Individual Reviewers and Comments

- 3.1 Reviewers should perform a technical review of the manuscript by providing a list of detailed comments. Reviewers should type (or paste) the list of comments into the window labeled “Comments to Authors” in the online Editorial Manager review website
- 3.2 Reviewers may insert typed comments into the manuscript Adobe Acrobat file (.pdf) using the “sticky notes” feature and upload the file to the online system as an attachment for the authors. However, reviewers must still provide typed comments into the system as indicated above. Reviewers should not concern themselves with minor spelling and grammar issues unless these issues impact the technical message of the manuscript. Minor spelling and grammar issues will be addressed by the Editors of the Welding Journal if the manuscript is accepted for publication.
- 3.3 The IR may include an introductory section at the beginning of the review that accomplishes one or more of the following tasks: 1) thanks the authors; 2) provides a brief summary of the work; 3) provides comments on the value of the work; or 4) provides comments on the reviewer’s decision.

Example Introductory Section: *“The reviewer wishes to thank the authors for submitting their manuscript to the Welding Journal Research Supplement (WJRS) for possible publication and for the opportunity to review this interesting manuscript. The authors have undertaken a combined experimental and modeling effort on material flow during FSW of Al alloys using tools with different designs. The experiments were well conceived and executed, and the manuscript is well written. This work will provide a useful addition to the body of literature for FSW. The manuscript is acceptable for publication in the WJRS pending*

resolution of the mandatory comments listed below.

- 3.4 The IR may include both general and specific comments on the manuscript. Specific comments refer to issues with a particular statement or claim by the authors within the manuscript, while general comments may address overarching topics pertinent to the entire manuscript. *The IR must refrain from using personal comments as they are never appropriate in a review.*
- 3.5 If an IR believes an author's logic is flawed, he/she should make constructive criticism, backed with appropriate references, etc.
- 3.6 IRs should indicate clearly whether comments are mandatory or optional. Mandatory comments must be addressed by the authors prior to publication of the manuscript, while optional comments may be considered by the authors to improve the technical content or readability of the manuscript.
- 3.7 For each specific comment, the IR should indicate the page number and manuscript section for the passage under question.
- 3.8 For each specific comment, the IR is requested to include the specific passage or statement in question within double quotes as part of each comment. This task can be most easily accomplished by copying and pasting the statement in question from the manuscript file into the comment.
- 3.9 For each comment, the IR shall identify the issue in question, state the concern with the issue, and provide definitive instructions to the authors on how to resolve the issue. At their discretion, IRs may provide suggestions or guidelines, or cite previously published references that may help the authors resolve the issue under question.

Example Comment: Discussion Section, page 12, Mandatory: The authors state that "liquation cracking during GTAW of Alloy 718 is caused by fairies and goblins". These statements are in direct conflict with the accepted theories of liquation cracking of these alloys, and the reviewer disagrees strongly with the statements. The authors must resolve this issue or provide further support for the efficacy of their theory. The reviewer suggests that the authors perform a more comprehensive literature review, rewrite the pertinent passages of the manuscript to correct these statements and cite appropriate references applicable to accepted theories. The authors may benefit from study of the following papers: 1) ...2)" (Cite appropriate references here if desired.)

4.0 Individual Reviewer's Proposed Decisions

Following completion of their review, IRs will be asked to make a final decision in the review website. Final decision on publication for any manuscript will be made by the LPR using input from the IRs. IRs will choose from the following decision choices:

- 4.1 **Accept as is:** This condition is rare after the first review. The IR recommends that the manuscript be moved to the *Welding Journal* staff for publication.
- 4.2 **Accept with optional revisions:** The IR recommends that the manuscript be returned to the author for possible revision.
- 4.3 **Accept with mandatory revisions:** The IR recommends that the manuscript be

returned to the authors for revisions. After revisions are completed, the revised manuscript will be returned to the IR to evaluate whether the revisions have been addressed suitably.

It is important to note that failure by the authors to provide suitable revisions may be cause for subsequent rejection of the manuscript regardless of the title of this decision. (Note: At the time of completion of this version of the Reviewers' Guidelines, this choice on the review website is named "Accept with Mandatory Revisions". Efforts are currently planned to rename that choice "Mandatory Revisions" to remove any potential confusion. This passage will be revised once the change is made.)

- 4.4 **Reject:** The IR recommends that the manuscript be rejected. The authors may appeal the decision. However, most appeals are handled by the LPR.
- 4.5 **Accept as a Feature Article:** The IR feels that the manuscript is not appropriate for publication in the *WJRS*, but is potentially suitable for publication as a Feature Article in the front of the *Welding Journal*. The manuscript will be moved to the *Welding Journal* staff for consideration for publication.

5.0 Common Issues with Poor-Quality Manuscripts (Frequently Asked Questions)

IRs may encounter some of the following issues common to poor-quality manuscripts. The issues are given descriptive names, and the discussions of each type are phrased in the form of Frequently Asked Questions (FAQs) from reviewers. Reviewers should become familiar with the different issues, so they can recognize variations on the themes in manuscripts they review.

- 5.1 **Question:** How do I deal with a manuscript written by authors whose first language is not English? There may be passages in the manuscript where I agree with the author's technical points assuming I understand what they are trying to say. There may be places where I do not understand their points at all. (English as a second language manuscript) **Response:** In this case, you should provide a list of major examples for the writing issues and recommend rejecting the manuscript. However, if you see possible major technical merits, you may advise the LPR in your written comment to encourage the authors to take care of the writing issues and then resubmit as a new manuscript.
- 5.2 **Question:** I have been asked to review a manuscript that is brief, vague or incomplete, but says nothing incorrect. For example, the manuscript indicates that a certain phase transformation occurs because it lowers the free energy. While this statement is not incorrect, there is more information that can be provided for a much fuller explanation. How should I proceed with this review? (Not wrong but says nothing manuscript) **Response:** You should recommend Rejection and advise the LPR in your written comment the major issues you observed.
- 5.3 **Question:** I have been asked to review a manuscript that is technically correct but is very similar to prior publications by other researchers. For example, the authors have essentially re-developed the WRC-92 Constitution Diagram for austenitic stainless steels or have rederived Rosenthal's equations for heat flow

during welding. How should I approach this review? (Re-invent the wheel manuscript) **Response:** You should recommend Rejection and advise the LPR in your written comment this issue and list these relevant prior publications.

- 5.4 **Question:** The manuscript I am reviewing has great color graphics and plots, uses advanced characterization methods (for example, HAADF TEM, neutron diffraction, EBSD), and reports on a wide range of techniques to address their study (processing, modeling, characterization, mechanical testing, etc.) using state-of-the-art tools. However, the authors do not seem to exhibit a good understanding of how to use the tools and/or how to integrate the findings with the different tools into a coherent explanation of their work. They appear to have overlooked some important technical details. Should I be concerned since the authors appear to be competent otherwise? (Looks pretty but is not technically sound manuscript) **Response:** You should report this to the LPR in your writing comment with your findings and observations. This typically should NOT affect the choices among Rejection, Accept Mandatory Revision, and Accept Optional Revision. However, in such a case, recommending Accept As IS should not be appropriate.
- 5.5 **Question:** I have accepted a request to review a manuscript with a very long and meandering introduction that is wordy. The experimental design is not well thought out, and the discussion is oversimplified and lacks real substance. The author may have recently graduated (their thesis is listed among the references), and their thesis advisor(s) may not be listed as co-authors. The author has clearly put in considerable work in preparing the manuscript. How should I proceed with this review? (MS thesis manuscript) **Response:** You should point out these issues in the writing comments and recommend the LPR to reject but encourage the authors to take care of these issues and resubmit as a new manuscript.
- 5.6 **Question:** The manuscript I am reviewing has many detailed equations, and the authors claim that they are reporting an astounding result. While the equations all appear correct, and the result is useful, the authors do not do a good job with written explanation of the results and why they are important. Rather, they assume that readers will understand the value of the results. The authors clearly exhibit a superior acumen for math. Is that enough to accept the manuscript? (I am too smart to be bothered to explain my results manuscript) **Response:** Such a paper should be recommended for Accept Mandatory Revision if there are no other majors that would cause a rejection. Your writing comments will guide the authors to take care of the issues.
- 5.7 **Question:** I am reviewing a manuscript that reports a lot of data. It may be derived from a large report of some kind. The study outlined in the manuscript is clearly comprehensive and detailed, and it provides some useful results that will contribute to the body of welding knowledge. However, the discussion section is limited. How should I proceed with this review? (Report/data dump manuscript) **Response:** Such a paper should be recommended for Accept Mandatory Revision if there are no other majors that would cause a rejection. Your writing comments will guide the authors to take care of the issues.

- 5.8 **Question:** This question may be a corollary to the previous question. The authors have used some kind of statistical approach (DoE, ANOVA) or AI approach (AI, ANN, machine learning) to analyze the large amount of data they collected. They provide detailed results, including fitting equations or relationships, and how statistically significant their results are. However, after the experimental section, the authors almost never mention welding, and do not explain their results well in terms of benefit to the welding industry or if the results are applicable beyond their specific study. Should I be concerned since the authors use sound scientific based approaches to reach their results? (DoE, ANOVA, AI only manuscript) **Response:** Yes, this should be a major concern. Such a paper should be recommended for Accept Mandatory Revision if there are no other majors that would cause a rejection. The final decision of the revision should be made by the LPR balancing the contributions and the insufficiency in some areas.
- 5.9 **Question:** This question may also arise separately or in conjunction with issues described in the last two questions. The manuscript I am currently reviewing details a study of a component of interest to the author's company. They employed proper methods and analyses to study the problem, but the results are narrow and not applicable to the welding community in general. How should I proceed with this review? (Production study manuscript) **Response:** Publication of research related to the author's company is allowed, but the IR must ensure that all review criteria described above are fully met, with the work clearly resolving a significant technical challenge of broad interest to the welding and materials joining community. Even if the work is technically complex, if it does not produce a broadly applicable technical advance or method, it is likely not appropriate for the WJRS.