Top Five Challenges and Solutions for Reviewing WPSs

KT PROJECT
SUCCESS ACHIEVED + DELIVERED

A project may assume that welding procedure specification (WPS) reviews will be addressed by others, later. Not establishing which WPSs should be reviewed, how they should be reviewed, and who should review them inevitably introduces the project risks of inappropriate or incorrect use of WPSs, wasted resources, or both. This fact sheet summarizes the challenges and solutions of reviewing WPSs.

No.	Question	Challenge	Solution
1.	Are WPS reviews required?	Who knows? A project that reviews all, none, or a random sampling of WPSs however the last project did it, or without knowledgeable guidance or a plan (e.g., project instruction), plans to fail.	To streamline the process, a smart project provides clear instructions about which WPSs require review to: • Avoid guesswork and allocate the correct labour-hours for WPS resource requirements and reviews; and, • Ensure that reviews are appropriate and value-added.
2.	Why should WPSs be reviewed?	How can a project ensure that welding will be acceptable? Project personnel may not understand why WPSs should be reviewed at all because the suppliers may be pre-qualified.	A smart project requires the review of WPSs to confirm compliance, and for record (i.e., archive for future reference). A review ensures WPSs are properly certified and that production welding will meet all project requirements (e.g., code of construction, jurisdictional regulations, project specifications, or a combination).
3.	Which WPSs should be reviewed?	Who knows? Requirements for WPS review may be assumed, not established, unknown, vary, or simply follow the process used on the last project. Without direction, the selection of WPSs for review may be ad hoc, costly, and risky.	A smart project identities which WPSs shall be reviewed (e.g., all WPSs or only those for critical or specific applications) as a function of equipment: • Cost (e.g., hundreds vs. tens of thousands of dollars); • Complexity (e.g., design and materials as standard or non-standard); or, • Criticality (e.g., in-service process or use, or risk as determined by the consequence or severity and the likelihood or probability of failure).
4.	How should WPSs be reviewed?	What has generated success for past WPS reviews? The WPS review process and purpose depend upon many factors that vary for each project. How can lessons learned from previous successes and failures be applied for continuous improvement?	A smart project identifies the: • Benefits and risks to be addressed; • Lessons learned; • Requirements to be verified; • Resources available to perform the task; and, • Review method(s) to be used such as a *No review (for record only)*, *Summary review*, *Comprehensive review*, or *Third-party inspection review*. It is a best practice to acquire a weld map or WPS summary with the WPSs.
5.	Who should review WPSs?	Who is qualified to review a WPS? Who knows? How do I find out? The resources available to a project may vary greatly. Searching for someone to review WPSs after the WPSs are received puts a project at risk of inadequate review, schedule delay, or both.	A smart project employs a qualified reviewer with at least one of the following: • Diploma in material or welding engineering technology; • Post-graduate degree in material or welding engineering; • Certificate as a welding engineer, inspector, or procedure reviewer; • Knowledge and experience, with or without certification; or, • Training for welding inspection or standards.

How Smart Projects Review Welding Procedure Specifications expands on this fact sheet.