
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

9/23/2016

**SAFETY SYSTEM DIGITAL PLATFORM
- MELTAC (MITSUBISHI ELECTRIC TOTAL ADVANCED CONTROLLER) -
TOPICAL REPORT**

Mitsubishi Electric Corporation

TAC NO.: MF4228
RAI NO.: #1
DATE OF RAI ISSUE: 6/29/2016

QUESTION NO.: 2 for JEXU-1041-1031, "MELTAC Platform Software Tools"

Page 15, Section 5.0, of this document, "Detailed Description of Processes," does not identify the procedure used to initially select, track and maintain the specific software tool suppliers that are identified in this section. BTP 7-14, B.3.1.11.2, states that the a description of the process used to maintain and track purchased items, such as software tools used to make the final product should be provided. BTP 7-14 goes on to state this qualification procedure should be provided, and a method of tracking tool history, bug lists, and errata sheets should enable tracking which design outputs may be affected. Please provide this qualification procedure on the docket for NRC staff review.

ANSWER:

[

]

Impact on Topical Report

There is no impact on the Topical Report.

Impact on Technical Report

Section 1.0 will be revised and Appendix A will be added to JEXU-1024-1031, "MELTAC Platform Software Tools" (see Attachment-1).

1.0 INTRODUCTION

This document describes the software tools, how their quality has been determined, how they are used and maintained, and verification and the validation (V&V) activities associated with the outputs generated by those software tools for the Mitsubishi Electric Total Advanced Controller (MELTAC) platform (i.e., Method (b) in Clause 5.3.2 of IEEE Std. 7-4.3.2-2003). This document encompasses the software tools used to develop the MELTAC platform basic software, which includes firmware and field programmable gate arrays (FPGAs) on all MELTAC platform modules.

This document supports “Safety System Digital Platform - MELTAC - Topical Report” (JEXU-1041-1008), which references “MELTAC Platform Software Program Manual” (JEXU-1041-1016) and satisfies the commitments made under Table 1 Section 2.17 “Software Tool Analysis Report” of “Mapping of MELTAC Platform Licensing Documents to the DI&C-ISG-06 Guidance” (JEXU-1041-1012).

BTP 7-14, B.3.1.11.2 requires evaluation process for software tools, if tools are purchased as commercial items. Appendix A describes the evaluation procedure for purchased software tools used to develop MELTAC platform basic software.

Tools-2

“Safety System Digital Platform - MELTAC - Topical Report” (JEXU-1041-1008) also describes the MELTAC engineering tool functions associated with application software development. Appendix B of this document further describes these functions: how their quality has been determined, how they are expected to be used and maintained, and the verification and validation (V&V) activities associated with the outputs generated by the MELTAC engineering tool (i.e., Method (b) in Clause 5.3.2 of IEEE Std. 7-4.3.2-2003).

Tools-1a

2.0 REFERENCES

Document Name	Document Number	Revision
Safety System Digital Platform - MELTAC - Topical Report	JEXU-1041-1008	Current
Mapping of MELTAC Platform Licensing Documents to the Digital I&C-ISG-06 Guidance”	JEXU-1041-1012	Current
Digital I&C-ISG-06 “Digital Instrumentation & Control Licensing Process”	ML110140103	1
MELTAC Platform Software Program Manual	JEXU-1041-1016	Current
Guidance on Software Reviews for Digital Computer-Based I&C Systems	NUREG 0800 BTP 7-14	2007
Criteria for use of Computer in Safety Systems for Nuclear Power Plants	RG 1.152	3
Criteria for Digital Computers in Safety Systems for Nuclear Power Generating Stations	IEEE Std. 7-4.3.2-2003	2003

APPENDIX A EVALUATION PROCEDURE FOR PURCHASED SOFTWARE TOOLS TO DEVELOP MELTAC BASIC SOFTWARE

[

Tools-2

]

Table A.1 Evaluation Test Applicability

[

]

Tools-2