



CERTIFICATION PROGRAMS

Navigating the New Certification Programs for Hydraulic Metal Structures Fabricator

Gap Analysis Tables

The following series of tables have been provided to assist certified Bridge and/or Hydraulic Structures certified fabricators in identifying the gaps between their current certification and the new certifications found in Chapter 6 of the *Standard for Certification Programs* (AISC 207-20).

How to Use These Tables:

Determine the table which fits your current certification status, and that table will identify the possible gaps in your quality management system (QMS). If you are not certified to any bridge program or hydraulic program, then Chapter 6 will be entirely new to you.

NEW indicates a new requirement not covered by the current program in the comparison and would need to be implemented to fulfill the requirements.

Comments - indicate a minor change that needs reviewed to ensure conformance.

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Table 1: Comparison of current HYD to the new HYD.

If you currently have HYD, this is how it meets the new HYD:

HYD	HYD20	Comments
4.3	6.3	ANSI CP-189 or ASNT SNT-TC-1, and ASTM F3125 required. AWS D1.5 no longer required. Expanded list of other references in commentary.
4.5.4.1	6.5.4.1	No changes for personnel qualifications. Better explanation of NDT requirements.
4.5.4.2	6.5.4.2	Adds automatic, mechanized or semi-auto welding equipment as required.
NEW	6.6	Construction document review added requirements.
NEW	6.7.1	Detailing standards to include assembly documents.
NEW	6.7.6	Detailing function to include personnel knowledgeable in hydraulic structures.
4.7.8	6.7.8	No change to the preparation of fabrication documents.
NEW	6.12.1	Requires dissimilar metal welding procedures.



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Table 2: Comparison of current HYD to the new Advanced HYDA.

If you currently have HYD, and would want the Advanced HYDA you would need the above gaps of [Table 1](#) plus these:

HYD	HYDA20	Comments
4.3	6.A.3	ASTM F3125 required.
NEW	6.A.5.4.1	Requires CWI. Better explanation of NDT requirements.
NEW	6.A.12.1	Distortion control procedure required.
4.12.2	6.A.12.2	No change. RCT procedure required.
NEW	6.A.12.6	Procedure for trial assembly is required.
NEW	6.A.12.7	Procedure for machining is required.
4.3	6.F.3	No changes. AWS D1.5 required.
4.F.5.7	6.F.5.7	No changes. Quality manual must reference to FCP
4.F.7.1	6.F.7.1	Clarifies that procedure must describe how FC materials are identified on BOM. Includes commentary for other metals designated FCM.
4.F.10.1	6.F.10.1	No changes. Includes commentary for other metals designated FCM.
4.F.11	6.F.11	Material ID as FCM required at receipt. Requires that consumables used for FC welding is identified by procedure.
4.F.12.1	6.F.12.1	No changes. The requirements of the FCP are clarified for application in Hydraulic structures.
4.F.13	6.F.13	No changes. Procedure includes inspection of FC welds.
4.F.15.2	6.F.15.2	No changes. Repairs are critical or noncritical as defined by FCP.



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Table 3: Comparison of current SBR to the new HYD.

If you currently have SBR, you would need to address these items to meet HYD:

SBR	HYD20	Comments
4.3	6.3	ANSI CP-189 or ASNT SNT-TC-1, and ASTM F3125 required. Expanded list of other references in commentary.
4.5.4.2	6.5.4.2	Adds automatic, mechanized or semi-auto welding equipment as required.
NEW	6.6	Construction document review added requirements.
NEW	6.7.1	Detailing standards to include assembly documents.
NEW	6.7.6	Detailing function to include personnel knowledgeable in hydraulic structures.
4.7.8	6.7.8	No change to the preparation of fabrication documents.
NEW	6.12.1	Requires dissimilar metal welding procedures.
4.12.2	NR	RCT procedure and demo not required.

NOTE: for Standard HYD a CWI is not required and alternate quals for inspectors under AWS D1.1 are allowed. See 6.5.4.1.



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Table 4: Comparison of current IBR or ABR to the new HYD.

If you currently have IBR or ABR, you would need to address these items to meet HYD:

IBR/ABR	HYD	
4.3	6.3	ANSI CP-189 or ASNT SNT-TC-1, and ASTM F3125 required. AWS D1.5 no longer required. Expanded list of other references in commentary.
NEW	6.12.1	Requires dissimilar metal welding procedures .



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Table 5: Comparison of current SBR to the new Advanced HYDA.

If you currently have SBR, you would need to address these items to meet Advanced HYDA:

SBR	HYDA20	Comments
4.5.4.1	6.A.5.4.1	Requires CWI, alternative quals not allowed
NEW	6.A.12.1	Distortion control procedure required
4.12.2	6A.12.2	No change RCT required
NEW	6.A.12.6	Procedure for Trial Assembly required.
NEW	6.F.5.7	Quality manual must reference to FCP
NEW	6.F.7.1	Requires procedure for describing how FC materials are identified on BOM and how FC welds are identified. Includes commentary for other metals designated FCM.
NEW	6.F.10.1	Procedure must include purchasing requirements of FCM. Includes commentary for other metals designated FCM.
NEW	6.F.11	Procedure for traceability of FCM and material ID as FCM required at receipt and throughout fabrication. Requires identification consumables used for FC welding to be included in the procedure.
NEW	6.F.12.1	FCP required. The requirements of the FCP are clarified for application in Hydraulic structures.
NEW	6.F.13	Procedure includes inspection of FC welds.
NEW	6.F.15.2	Repairs are critical or noncritical as defined by FCP.



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Table 6: Comparison of current IBR to the new Advanced HYDA.

If you currently have IBR, you would need to address these items to meet Advanced HYDA:

IBR	HYDA20	Comments
4.5.4.1	6.A.5.4.1	Requires CWI, alternative quals not allowed
NEW	6.A.12.1	Distortion control procedure required
4.12.2	6A.12.2	No change RCT required
4.I.12.6	6.A.12.6	No changes. Procedure for Trial Assembly required.
NEW	6.F.5.7	Quality manual must reference to FCP
NEW	6.F.7.1	Requires procedure for describing how FC materials are identified on BOM and how FC welds are identified. Includes commentary for other metals designated FCM.
NEW	6.F.10.1	Procedure must include purchasing requirements of FCM. Includes commentary for other metals designated FCM.
NEW	6.F.11	Procedure for traceability of FCM and material ID as FCM required at receipt and throughout fabrication. Requires identification consumables used for FC welding to be included in the procedure.
NEW	6.F.12.1	FCP required. The requirements of the FCP are clarified for application in Hydraulic structures.
NEW	6.F.13	Procedure includes inspection of FC welds.
NEW	6.F.15.2	Repairs are critical or noncritical as defined by FCP.



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Table 7: Comparison of current ABR to the new Advanced HYDA.

If you currently have ABR, you would need to address these items to meet Advanced HYD:

ABR	HYDA20	Comments
4.5.4.1	6.A.5.4.1	Requires CWI, alternative quals not allowed.
4.A.12.1	6.A.12.1	No changes. Procedure for distortion control required.
4.12.2	6A.12.2	No changes. RCT required
4.I.12.6	6.A.12.6	No Changes. Procedure for Trial Assembly required.
NEW	6.F.5.7	Quality manual must reference FCP.
NEW	6.F.7.1	Requires procedure for describing how FC materials are identified on BOM and how FC welds are identified. Includes commentary for other metals designated FCM.
NEW	6.F.10.1	Procedure must include purchasing requirements of FCM. Includes commentary for other metals designated FCM.
NEW	6.F.11	Procedure for traceability of FCM and material ID as FCM required at receipt and throughout fabrication. Requires identification consumables used for FC welding to be included in the procedure.
NEW	6.F.12.1	FCP required. The requirements of the FCP are clarified for application in Hydraulic structures.
NEW	6.F.13	Procedure includes inspection of FC welds.
NEW	6.F.15.2	Repairs are critical or noncritical as defined by FCP.



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Table 8: Comparison of current FCE to the new Hydraulic HFC.

If you currently have FCE, you would need to address these items to meet either Advanced HYDA or to add the HFC to the HYD:

FCE	HFC20	Comments
4.F.	6.F.5.7	No changes. Quality manual must reference FCP.
4.F.7.1	6.F.7.1	Requires procedure for describing how FC materials are identified on BOM and how FC welds are identified. Includes commentary for other metals designated FCM.
4.F.10.1	6.F.10.1	No changes. Procedure must include purchasing requirements of FCM. Includes commentary for other metals designated FCM.
4.F.11	6.F.11	Procedure for traceability of FCM and material ID as FCM required at receipt and throughout fabrication. Requires identification consumables used for FC welding to be included in the procedure.
4.F.12.1	6.F.12.1	No changes. FCP required. The requirements of the FCP are clarified for application in Hydraulic structures.
4.F.13	6.F.13	No changes. Procedure includes inspection of FC welds.
4.F.15.2	6.F.15.2	No changes. Repairs are critical or noncritical as defined by FCP.