October 9, 2025

Office of Pipeline Safety (PHP–30)
PHMSA, U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, DC 20590–0001

RE: request for written interpretations of 49 CFR 192, Subpart F

TWIMC:

My name is Jarrod Cath and I am an engineer in compliance with the Richmond Gas Works, a municipal gas utility in central Virginia. I have a few questions about the text of 49 CFR 192, Subpart F (specifically, 192.281(e), 192.281(e)(4), and 192.283(a)(1)) and I'm hoping your office can offer some clarity.

192.281(e) says "***Mechanical joints.*** Each compression type mechanical joint on plastic pipe must comply with the following", followed by a list of requirements. 192.281(a) goes on to say "[t]he gasket material in the coupling...", and 192.281(b) says "[a] rigid internal tubular stiffener...must be used...". It is clear from the content of 192.281(e)(1)-(4) that PHMSA expects that the "compression type [*sic*] mechanical joint[s]" referred to in the introductory language of 192.281 are couplings. It is not obvious to me that the term "joint" must be so limited because, in 192.283, the term "joint" is used to refer to both "lateral pipe connections" and "non-lateral pipe connections" (i.e. both tees and end-to-end fittings such as couplings, elbows, or transition fittings). Am I correct in assuming that the requirements of 192.281 do not preclude the installation of components used to form lateral connections which could be considered "compression type mechanical joints" (for instance, bolt-on tapping tees)?

Similarly, 192.275 and 192.277 explicitly specify that cast iron and ductile iron pipes, respectively, “may not be joined by threaded joints”; however, 192.151(c) states “[w]here a threaded tap is made in cast iron or ductile iron pipe, the diameter of the tapped hole may not be more than 25 percent of the nominal diameter of the pipe unless the pipe is reinforced...” and continues on to list exceptions to this rule. Am I to understand that PHMSA does not consider such taps to be “threaded joints” for the purposes of 192.275 and 192.277? What, generally, is the relationship between the words “joint” and “connection” in 49 CFR 192?

192.281(e)(4) says "[a]ll mechanical joints or fittings installed after January 22, 2019, must be Category 1 as defined by a listed specification for the applicable material, providing a seal plus resistance to a force on the pipe joint equal to or greater than that which will cause no less than 25% elongation of pipe, or the pipe fails outside the joint area if tested in accordance with the applicable standard". This would be

clear in isolation, but again the header of 192.281(e) says that "[e]ach compression type mechanical joint on plastic pipe must comply with the following". This obviously limits the applicability of 192.281(e)(4) to "compression type mechanical joints"; my confusion results from an apparent assumption that all mechanical joints on plastic pipe are compression-type. Previously, PHMSA has discriminated between "compression couplings" and "stab fittings" (see, for example, the final rule published on February 11, 2011). Can you confirm that stab-type fittings (and any other mechanical fittings which are not obviously compression-type) are still subject to the requirements of 192.281(e)(4)?

Finally, I have a question regarding the requirements of 192.283(a)(1) in the context of qualifying a procedure to use when installing electrofusion fittings on polyethylene pipe. The relevant text is somewhat longer than I care to include here, but it appears to me that 192.283(a)(1)(i) requires that electrofusion fittings on polyethylene (which is a thermoplastic material) meet EITHER the requirements of ASTM 1055-98's Sustained Pressure Test OR the Minimum Hydraulic Burst Pressure Test, AND the requirements of EITHER the Tensile Strength Test OR the Joint Integrity Test from the same document. 192.283(a)(1)(iii) appears to require only that electrofusion fittings installed on polyethylene pipe meet the requirements of EITHER the Sustained Pressure Test, Minimum Hydraulic Burst Pressure Test, Tensile Strength Test, OR Joint Integrity Test from the same ASTM standard. Subparagraph (i) seems to require two tests to qualify an electrofusion procedure for use on polyethylene pipes (because of the word "additionally"), but Subparagraph (iii) only appears to require one. Can you clarify the requirement of 192.283(a)(1) for me in this context?

Thank you in advance for your time and consideration. I am confident that any response you may provide will further my understanding of the relevant regulations.

Respectfully,

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