



Reply to the attention of:

JUL 13 2015

Titus J. Diamond, P.E.
Flint Energies
PO Box 6719
Warner Robins, GA 31095-6719

Dear Mr. Diamond:

Thank you for your March 4, 2015 correspondence to the Occupational Safety and Health Administration (OSHA), Directorate of Enforcement Programs. You requested guidance concerning OSHA requirements for protective clothing and equipment in the Electric Power Generation, Transmission and Distribution Standard (29 CFR 1910.269). Your question, and our reply, follow.

Question: Under 29 CFR 1910.269, can an employer use Table 410-1 of the 2012 National Electrical Safety Code (NEC) to select protective clothing and equipment?¹

Response: Paragraph (l)(8)(ii) of 29 CFR 1910.269 provides that “[f]or each employee exposed to hazards from electric arcs, the employer . . . make a reasonable estimate of the incident heat energy to which the employee would be exposed.” The employer must use that estimate for purposes of complying with requirements for protective clothing and other protective equipment (see 29 CFR 1910.269(l)(8)(v)).

Note 1 to 29 CFR 1910.269(l)(8)(ii) provides that an employer can use any method of calculating incident heat energy that reasonably predicts the incident energy to which employees would be exposed. And Appendix E to 29 CFR 1910.269 provides guidance on estimating available heat energy. In developing the guidance in Appendix E, OSHA emphasized calculation methods that are supported by testing data. While Appendix E does not specifically address Table 410-1 in the 2012 NESC, OSHA has reviewed that table and its lengthy set of explanatory notes to determine if the arc-rating values it provides for various types of equipment provide reasonable estimates of incident energy as required by 29 CFR 1910.269(l)(8)(ii).

Table 410-1 of the 2012 NESC provides values for “the effective arc rating of clothing or a clothing system to be worn by employees working on or near energized lines, parts, or equipment.” (See Rule 410.A.3.a.) The Agency has determined that many of the values listed in Table 410-1 are acceptable for compliance with 29 CFR 1910.269(l)(8)(ii) because the notes to the table make clear that those values are based either on testing data or on calculations performed using methods described in IEEE Std 1584-2002 (IEEE Guide for Performing Arc Flash Hazard Calculations). However, the 2012 NESC does not contain enough information for OSHA to evaluate the reasonableness of the values in Table 410-1 to which notes 7 and 8 to that table apply. The text of notes 7 and 8 suggest that the values to which those notes apply are not

¹ Although you inquired only about OSHA’s general industry standard for electric power generation, transmission, and distribution (29 CFR 1910.269), the guidance provided in this letter also applies to the construction requirements at 29 CFR 1926.960(g)(2) and (5).

based on testing data or generally recognized calculation methods. Therefore, at this time OSHA can state only that it will accept the use of Table 410-1 in the 2012 NESC with respect to the values in that table to which notes 7 and 8 do not apply. When the employer's estimates follow this guidance, OSHA will accept arc-rated protection based on those estimates under 29 CFR 1910.269(l)(8)(v).

Thank you for your interest in occupational safety and health. We hope you find this information helpful. OSHA requirements are set by statute, standards, and regulations. Our interpretation letters explain these requirements and how they apply to particular circumstances, but they cannot create additional employer obligations. This letter constitutes OSHA's interpretation of the requirements discussed. Note that our enforcement guidance may be affected by changes to OSHA rules. Also, from time to time we update our guidance in response to new information. To keep apprised of such developments, you can consult OSHA's website at <http://www.osha.gov>. If you have any further questions, please feel free to contact the Directorate of Enforcement Programs at (202) 693-2100.

Sincerely,



For Thomas Galassi, Director
Directorate of Enforcement Programs