

Recommendation response followup:

5. *The Department of Labor and contractor Paragon Technical Services (PTS) should re-evaluate the job titles of Chemical Engineers, Industrial, Health, & Safety Engineers, and Mechanical Engineers and add these titles to the list of occupations presumptively exposed to the asbestos under EEOICP.*

**DOL Response: The Department agrees to coordinate a re-evaluation of the noted job titles with Paragon Technical Services and make agreed to alterations to the list of labor categories with a presumption of significant exposure to asbestos. In the event that changes are determined to be unwarranted, the Department will provide its analysis to the Board for review.**

1. The Board noted that there is an Asbestos Generic Profile (cited on p. 2 of the PTS report that you provided to us for forwarding to the Board) that addresses asbestos exposure of certain work processes associated with job titles, including Janitorial activities, Laundry, Power/Communication line maintenance. The Board noted that these job titles are not listed in Exhibit 15-4 of DEEOICP PM 4.3, and requested access to the Asbestos Generic profile in order to understand how asbestos exposure is addressed for these work processes/job.

- **Paragon Response:** There is not an Asbestos Generic Profile. Instead, asbestos is a toxic substance included in profiles for various work activities including asbestos. Each of these work activities can be performed by multiple labor categories. The PTS recommendation was based on the EEOICPA Procedure Manual criteria that, “certain presumptions may be made as to the **nature, frequency, and duration** of a specific exposure.” The Generic Profiles do not address the nature, frequency, or duration of specific exposures. Not all labor categories that are covered by the profiles that include asbestos meet the criteria to be included in the EEOICPA Procedure Manual Asbestos Exposure Presumption List.

Addition of asbestos prior to 1981 to some profiles was made by DOL direction in March 2010. For all work profiled in SEM, if credible documentation indicates use or exposure to asbestos, the profile is expanded to include asbestos for those situations.

2. PTS suggests that DOL review the death certificates from the NOMS for these job categories, which may be challenging due to data privacy issues and is unlikely, in the instances when the numbers of deaths are limited, to provide definitive answers. The Board stated that it does not recommend pursuing the review of NOMS death certificates. Malignant mesothelioma (MM) is a very uncommon cause of death, even in industries and occupations where asbestos was routinely used. The notion that asbestos exposure in a limited subpopulation of a Standard Occupational Classification (SOC) occupational category confined to one or a small number of industries where the specific SOC is active is responsible for an elevated mesothelioma Proportionate Mortality Ratio (PMR) becomes less tenable when a) the Proportionate Morality Ratio (PMR) is substantially elevated (PMR > 250), and/or b) the numbers of deaths are considerable (> 30). Reviewing the NOMS PMR output provided in Table 3 of our recommendation, occupations meeting these criteria include: Chemical Engineers (PMR = 449; # MM deaths = 30); Industrial, Health, & Safety Engineers (PMR = 259; # MM deaths = 30) and Mechanical Engineers (PMR = 250; # MM deaths = 50). So, the

Board stated its view that PTS should re-consider the issue of presumptive asbestos exposure for these three occupations.

- **Paragon Response:** PTS only recommended further death certificate review of three occupations: Layout Workers, Molding and Casting Machine Operators, and Materials Engineers not those included in the rationale from the ABTSWH. Note that the Board's comment about Chemical Engineers, Industrial and Health and Safety Engineers, and Mechanical Engineers having more than 30 deaths in the sample does not apply to the questionable occupations identified by PTS with samples limited to 5 deaths for Layout Workers, 10 deaths for Molding and Casting Machine Operators, and 7 deaths for Materials Engineers. Additionally, all the PMRs for these occupations were very near the PMR criteria greater than 250 discussed by the Board's comment.

The PTS recommendation for further review of these occupations would not require any personal identification associated with the death certificate but only identification of the associated industry code to determine if the industry where these small samples came from were actually industries that were similar to DOE facilities in nature of asbestos exposure. For example, the associated industries for Layout Workers include ship building which was known to have significant asbestos exposure that would not reflect similar exposures of similar workers at DOE facilities. If the majority of the deaths in this sample occurred in ship building this sample may not be representative for DOE facilities.

3. The Board further noted that one of the reasons that PTS cites for not linking asbestos exposure to certain job categories is the failure of asbestos to appear in the SEM as a potential exposure for those occupations. The Board stated its uncertainty if the SEM routinely recognizes bystander exposures, raising the question about whether the SEM can be expected to reliably link asbestos exposure to occupations whose only exposure was bystander in nature. The Board felt that this may well apply to the 3 job categories cited above: chemical and mechanical engineers and health and safety engineers, stating that "it seems quite likely that documentation provided by the DOE and, thus, the SEM, would not address bystander exposures." As a result, the Board recommended that PTS re-examine the issue of presumptive asbestos exposure for Chemical Engineers, Industrial, Health, & Safety Engineers, and Mechanical Engineers.

- **Paragon Response:** SEM does recognize bystander exposure when documentation such as industrial hygiene sampling demonstrates that potential asbestos exposure exists. SEM does not rely solely on labor categories to decide to include or exclude asbestos in the profile. Further, asbestos work usually establishes boundaries within which all workers, regardless of labor category, have to wear proper PPE to protect against asbestos.