

boundary (IR isopleth of  $3 \times 10^{-7} \text{ yr}^{-1}$ ) is shown overlapping the nearby surrounding areas as represented by the yellow contours in the figures. Note that the layout of the Hialeah Yard, which is enclosed on the east side by an approximately 10 feet high wall, will also reduce the likelihood that flammable vapor clouds could expand beyond the property in that direction.<sup>65</sup> The offsite areas where IR is between  $3 \times 10^{-7} \text{ yr}^{-1}$  and  $1 \times 10^{-6} \text{ yr}^{-1}$  contain only commercial /industrial structures. The Zone 2 risk boundary crosses the property line at the north and south ends of the yard in an area of industrial activity, but the population densities in these areas are less than the Zone 2 threshold criterion of 7,250 to 23,300 persons per square mile. No Zone 3 sensitive targets were identified within regions of IR values greater than  $3 \times 10^{-7} \text{ yr}^{-1}$  for either model. Given this analysis, the Individual Risk profiles for the Hialeah Yard are calculated to align with the fixed facility IR acceptability criteria stated in NFPA 59A (see Table 1).

The FN curves for the two routes, which represent the SR as the cumulative frequency versus severity, are provided in Figure 48 for train configuration C-1. The results indicate that the SR for the Hialeah Yard falls within the “ALARP” or tolerable region of acceptability according to the fixed facility SR criteria in NFPA 59A (see Figure 1).

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<sup>65</sup> Note that the integral equation-based models in PHAST Risk are not suitable for modeling the barrier effects of walls on flammable vapor cloud dispersion; thus, the north-south track was used as the primary rail yard route.