

### 8.3.2 Rail Yards and Intermodal Facilities LNG ISO Transportation – Influence of Train Configuration

The different train configurations were evaluated for LNG ISO movement and handling within the rail yards and intermodal facilities: (1) Hialeah Yard, (2) Port of Miami, (3) Port Everglades, and (4) Bowden Yard.

#### 8.3.2.1 Hialeah Yard

The first four train configurations (C-1 through C-4) are discussed for the train movement and lifting of LNG ISOs in the Hialeah Yard.<sup>68</sup> A summary of the risk metrics for the LNG ISO car Hialeah Yard handling and movement cases is provided in Table 50. The risk reduction presents the percent reduction in the SR Integral based on the C-1 (baseline) train configuration case. The maximum IR observed is the same for all cases, as it is driven by the Lift On activities which are not influenced by the train configuration. Based on comparison of the SR Integral for the four configurations, a risk reduction of 7.27% may be realized by using C-4 instead of C-1 for the Hialeah Yard movement and handling operations. The risk results for C-1, which are the basis for comparison, are discussed above in Section 8.1.3.

**Table 50. Hialeah Yard - summary of the risk metrics for LNG ISO car movements and LNG ISO lifting for multiple train configurations.**

Risk Metric	Hialeah Yard			
	C-1	C-2	C-3	C-4
SR Integral (total risk)	$1.10 \times 10^{-3}$	$1.04 \times 10^{-3}$	$1.03 \times 10^{-3}$	$1.02 \times 10^{-3}$
Maximum IR	$6.39 \times 10^{-5}$	$6.39 \times 10^{-5}$	$6.39 \times 10^{-5}$	$6.39 \times 10^{-5}$
Risk Reduction	--	5.45%	6.36%	7.27%

The Zone 3 isopleth of  $3 \times 10^{-7} \text{ yr}^{-1}$  travels at most 200 feet from the train route for C-1. The distance to this isopleth did not vary significantly compared to the other three train configurations. The primary difference was represented in the shape of the  $1 \times 10^{-6} \text{ yr}^{-1}$  contour at the north end of the facility. This contour's area decreased with each successive train configuration from C-2 to C-4. The offsite areas where IR is greater than  $3 \times 10^{-7} \text{ yr}^{-1}$  contain only commercial/industrial structures. The population densities in these areas are less than the Zone 2 threshold criterion of 7,250 to 23,300 persons/mile<sup>2</sup> for permitted populations. No Zone 3 sensitive targets were identified within the contours having IR values greater than  $3 \times 10^{-7} \text{ yr}^{-1}$ . The maximum IR observed at the Hialeah Yard was centered around the assumed point of Lift

<sup>68</sup> The IR contours are overlaid on an aerial image of the facility for these four train configurations in Appendix F, and the FN curves for the four train configurations can be found in Appendix G.