8.1.3 Rail Yards and Intermodal Facilities

The risk of LNG ISO handling and train movement within the rail yards and intermodal facilities was calculated for four scenarios: (1) Hialeah Yard, (2) Port of Miami, (3) Port Everglades, and (4) Bowden Yard. The risk represents the contribution from Lift On/Lift Off and train movement in the facilities for train configuration C-1.

Note that the locations of the lifting activities and the routes for train movements for each facility were applied as single points and fixed routes, respectively. In practice, lifting activities may occur along the tracks on the intermodal ramps at the facilities. By assuming that lifting only occurs at a single point, the total risk of the activity has been concentrated around this point. The actual risk for each facility posed by lifting will likely be less than represented by this conservative assumption since the risk would be distributed along each intermodal ramp's multiple tracks. Thus, this assumption conservatively bounds the anticipated risk for lifting activities at each facility.

The routes within each facility for LNG ISO train movements have been represented only along the main track to conservatively maximize the risk from train movements. In practice, the LNG ISOs are anticipated to move along many tracks within each yard; however, exact routes were unavailable for this analysis. By concentrating all accidents along the mainline, the distance to the risk thresholds is maximized. If all potential routes within the yard were modeled, then the distance to offsite risk levels would likely be reduced below the single main track route assumption.

The assumptions of using fixed points for lifting and fixed main track routes are anticipated to represent the maximum potential risk for each facility; therefore, these are the results provided below.

8.1.3.1 Hialeah Yard

The Hialeah Yard is the origin of LNG ISOs, and Lift On of the containers occurs there along the intermodal ramp. Two sets of assumptions were modeled for Hialeah in order to demonstrate the effects of route assumptions and the location of lifting on the risk outcomes. The first model (Route A) assumed that lifting occurred at a single point on the intermodal ramp and that train movement only occurred on the western-most yard track (see Figure 31). This simplified route was found to adequately represent the distance to the offsite Zone 3 IR threshold for train movement inside the facility regardless of the location of the track. By modeling lifting at a single point, the distance to the offsite IR thresholds was also conservatively calculated. The second model (Route B) calculated the risk for train movement along the western-most route, around the south loop track, and along the eastern-most track (see Figure 32). The movement along the easternmost track overlapped the intermodal ramp track, which was also used to represent lifting. The Route B model assumes that lifting activities could occur anywhere along

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