Attachment 3: Minimum Factors to be Considered in the Performance of the Safety and Security Risk Analysis

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| **Minimum Factors to be Considered in the Performance of the Safety and Security Risk Analysis Required by 49 CFR § 172.820** | | |
| Volume of hazardous material transported | Rail traffic density | Trip length for route |
| Presence and characteristics of railroad facilities | Track type, class, and maintenance schedule | Track grade and curvature |
| Presence or absence of signals and train control systems along the route (“dark” versus signaled territory) | Presence or absence of wayside hazard detectors | Number and types of grade crossings |
| Single versus double track territory | Frequency and location of track turnouts | Proximity to iconic targets |
| Environmentally sensitive or significant areas | Population density along the route | Venues along the route (stations, events, places of congregation) |
| Emergency response capability along the route | Areas of high consequence along the route, including high-consequence targets | Presence of passenger traffic along route (shared track) |
| Speed of train operations | Proximity to en-route storage or repair facilities | Known threats, including any threat scenarios provided by the DHS or the DOT for carrier use in the development of the route assessment |
| Measures in place to address apparent safety and security risks | Availability of practicable alternative routes | Past accidents |
| Overall times in transit | Training and skill level of crews | Impact on rail network traffic and congestion |

Source: HHFT Final Rule

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