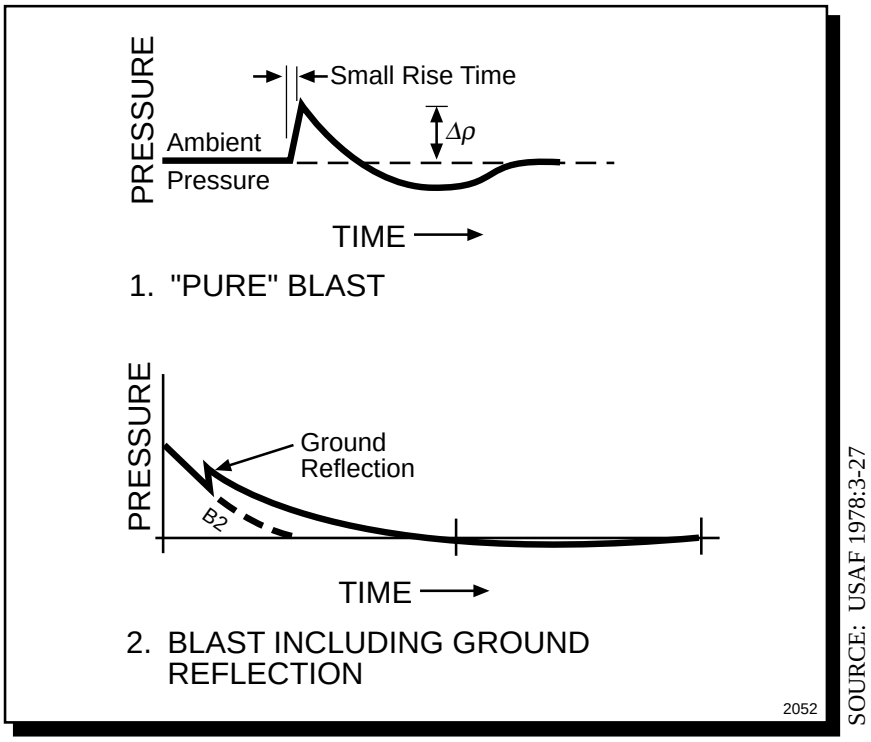

FIGURE 4.8.1.3–1.—*Typical Blast Impulses.*

There is no record of measurements of noise levels or overpressures made in connection with Pantex Plant detonations. Therefore, an airblast prediction model called BLASTO was used to estimate the overpressures resulting from Pantex Plant HE detonations (Reed 1995:1-17). A neutral lapse rate was assumed. Overpressures (dB) and their downwind distances from the source are presented for three wind speeds in Table 4.8.1.3–1. As shown in the table, the maximum size of Pantex Plant HE detonations could be audible out to distances of 5 to 10 kilometers (3 to 6 miles), depending on atmospheric conditions.

TABLE 4.8.1.3–1.—*Summary of Overpressures and Their Distances from the Source at Pantex Plant Predicted by the Airblast Model BLASTO*

WEIGHT OF EXPLOSIVE CHARGE (kg)		WIND SPEED (km/hr)		
24.9 (55 lb)	11.3 (25 lb)	4.28 (6.9 mph)	7.15 (11.5 mph)	11.42 (18.4 mph)
OVERPRESSURE (dB)		DISTANCE FROM SOURCE (meters)		
140	137.7	1,100 (3,608 ft)	1,490 (4,888 ft)	2,200 (7,218 ft)
133	131.7	2,200 (7,218 ft)	2,900 (9,514 ft)	5,200 (17,060 ft)
128	125.7	4,400 (14,436 ft)	6,200 (20,341 ft)	>10,000 (>32,808 ft)

Source: Reed 1995:1-17