



**Figure 5-156.** This frame from a video shot from a building to the northwest of WTC 7 was taken around 5:19:45 p.m. with an uncertainty of  $\pm 120$  s. The intensities have been adjusted.

Figure 5-139 indicates these windows lie around Columns 50 and 51 on the 11<sup>th</sup> floor. In the roughly 11 min between Figure 5-154 and Figure 5-156, the fires on this floor have continued to spread toward the west.

Figure 5-157 shows a closer view of the western edge of the north face of WTC 7 taken from a video clip recorded from the same location as that shown in Figure 5-152. This clip was recorded several minutes later than Figure 5-152, as is evident by the change in the shadow on the white building in the foreground. The clip was shot within a couple of minutes of the WTC 7 collapse at 5:20:52 p.m., consistent with the recollection of the videographer. At this time, flames are barely visible on the 13<sup>th</sup> floor at roughly the same location as in Figure 5-152. Heavy, dark smoke is visible rising along the east side of the building. There is also considerable smoke passing across the north face. The source of this smoke is not immediately obvious.

During the clip from which Figure 5-157 was taken, the camera zoomed in on the same area shown in Figure 5-152. Heavy smoke was visible rising from near the northwest corner. Suddenly, several pulses of jet flames several stories high were pushed out of a window near 13-54B on the 13<sup>th</sup> floor. These pulses continued for about 6 s. Figure 5-158 shows a frame captured during one of these pulses.

The amount of smoke on the north face increased dramatically at the same time as the pulses. This is the only time that this unusual behavior was observed for WTC 7. Similar behaviors observed during the fires in the WTC towers (NCSTAR-1-5A) were attributed to internal pressure pulses generated by events such as local collapses within the buildings. Since the exact time for this particular event is unknown, it is not possible to associate it with a known event within WTC 7.

Figure 5-159 shows a view of the north face of WTC 7 just seconds before it began to collapse. It is a frame from a video clip shot from the northwest at 5:20:17 p.m.  $\pm 15$  s. Comparison with Figure 5-139 indicates that the fires visible in the image were located on the 11<sup>th</sup> floor between Columns 50 and 52, showing that the fire on this floor was continuing to spread to the west just prior to the collapse of the building.