OVERVIEW

Early one evening in late January 2008, a teenaged boy waited for a Q-train on a platform at the Kings Highway elevated subway station. While looking for the train, he placed his weight on the wooden rubbing board, a strip anchored to the platform’s outer edge to close the gap between the platform and train and prevent damage to both. As the train approached the station, the rubbing board gave way and the boy fell to the track. Fortunately, he was able to climb back on to the platform and escaped serious injury.

This was the third time in three years that a subway rider fell to the tracks after a defective rubbing board broke under his weight.

In February, NYCT commenced a review of virtually all of the rubbing boards used in the hundreds of stations in the subway system, rating each board as being in “good,” “fair” or “poor” condition. In accordance with its standards, NYCT staff had to address any safety defect within 24 hours.

Shortly after the commencement of this review, the President of MTA New York City Transit (NYCT) issued a letter about it to all employees. In it, he emphasized the importance of safety and called for standardized inspections and consistent reporting.

Later that spring, the Office of the MTA Inspector General (OIG) commenced its own review, conducted visual platform-level inspections of rubbing boards at various stations, discovered a number of apparent safety defects and reported its findings to NYCT in early June.

In August and September, in a continuation of its review, OIG conducted and photographed its own platform-level inspections of numerous stations across three boroughs – stations that NYCT during its system-wide survey had judged to be in “fair” or “poor” condition. The OIG inspections and follow-up interviews with NYCT management officials confirmed that NYCT inspections are not consistently and correctly identifying and reporting platform-edge safety defects, a necessity for making repair of these defects a top priority.

Clearly, accuracy and consistency in identifying and reporting safety issues is essential to make the repair process more effective and efficient. Ensuring accurate identification and consistent

* Formerly MTA/OIG #2008-15.
reporting requires full understanding and appreciation of applicable safety standards; increased training, supervision and coordination of those who inspect and repair platform edges; and greater executive oversight. Given the present fiscal constraints, NYCT must be even more vigilant that maintenance requirements with safety implications are implemented without delay.

**SUMMARY OF KEY FINDINGS**

- Platform-level inspectors at NYCT subway stations failed to correctly identify and report platform-edge safety defects visible at 16 of 23 stations sampled by OIG (70%), as confirmed by top officials in charge of station maintenance based upon their review of NYCT records and OIG photographs.

- Out of an OIG sample of 25 comments made by platform-level inspectors reporting non-safety defects, 22 of those comments used language that actually indicated safety defects, according to a review of those comments by top station maintenance officials.

- Station Operations Division middle managers are not promptly resolving confusion caused by inspectors who describe platform-edge conditions as safety defects, but rate and report them as non-safety defects.

- Different inspectors described the same platform-edge condition inconsistently. For example, inspection reports covering one station in the OIG sample, on five different days during a nineteen-day period, with no intervening repair, showed that two inspectors described the rubbing boards as “ok,” two others described them as “loose” (a safety defect) and a fifth noted that “rubbing boards in need of repair.”

- While NYCT requires that repair of so-called “non-safety defects” (which include safety defects that have been temporarily repaired) be completed within 60 days, its stated goal is to address 75% of those defects on time. Nevertheless, NYCT only addressed within 60 days some 41% of those rubbing board defects reported in the first eight months of 2008. Further, the backlog of defective rubbing boards is so great that NYCT’s goal for bringing these boards into a state of good repair is now December 2009.

NYCT does not dispute our findings and has recently reported taking steps to improve the inspection process.

After sharing our preliminary report with NYCT, the Inspector General met with NYCT President Howard Roberts and other NYCT officials to discuss how best the agency could respond to problems uncovered by the OIG. As a result, the President notified the Inspector General that NYCT has a plan to improve the quality of supervisory inspections. (The written response to our preliminary report by President Roberts, dated March 30, 2009, is attached in its entirety as Appendix B.) This plan will include instruction on proper inspection procedures, clarification as to categorizing defects, and additional review of rubbing board inspections at Station Operations staff meetings. NYCT acknowledged that its backlog of rubbing boards defects will take all of 2009 to remediate. It asserts that when those repairs are done, NYCT will
institute a revised routine-maintenance goal for completing future repairs within a reasonable timeframe.

While OIG recognizes that NYCT’s new initiatives regarding rubbing boards are an improvement over earlier practices, we remain concerned about the safety implications of our findings given the dangers posed by these boards, coupled with the history of problems NYCT has faced regarding their inspection and repair. We will be monitoring the effectiveness of the improved inspection process during 2009 and the promise to bring rubbing boards into a state of good repair by the end of this year. President Roberts recognizes the importance of these issues and has welcomed our continued review.

BACKGROUND

The 2002 MTA Auditor General Report

From June through December 2001, the MTA Auditor General conducted an audit of the maintenance of NYCT subway stations. It issued its report in March 2002 (the Audit Report). Among the audit’s stated primary objectives was to evaluate whether NYCT’s Station Maintenance and Support Groups were repairing reported defects in timely fashion. Among the problems identified by the audit were the lack of a standard defect sheet used by various Station Supervisors, and that the sheets required only very basic information.¹

NYCT Response to the Audit Report

On April 11, 2002, shortly after the issuance of the Audit Report, the NYCT Assistant Chief Station Officer (ACSO), Department of Subways, Division of Station Operations, Maintenance and Support Subdivision (Station Maintenance) convened a management meeting regarding defect reporting. Amongst her other duties, the ACSO directs and controls all activities associated with the management of the workforce responsible for maintaining all 468 stations in the NYCT subway system.

At this meeting, the managers agreed that they needed a standard inspection form to replace the many different forms previously used. Additionally, the managers received written standards defining A-priority defects and C-priority defects as well as a listing of what comprises these defects (there are no “B” defects). As written, these definitions were (and continue to be) as follows:²

¹ Station Supervisors, from the Station Operations Division, inspect rubbing boards (and other station conditions) at the platform level. Track Inspectors, from the Track/Infrastructure Division, view rubbing boards and their supports from track level. Structure Maintainers (from Station Maintenance) perform necessary repairs to rubbing boards and other station conditions, unless a particular expertise (e.g., ironwork) is required.

² Source: Memo dated April 22, 2002, from ACSO, Station Maintenance to the Chief Station Officer, the head of the Division of Station Operations, and other managers within that Division.
“A” priority is any safety, security, or revenue related item. These defects must be completed within 24 hours. The goal is to be 95% on time for all Stations.

“C” priority is any non-safety, security or revenue related item. These defects must be completed in 60 days. The goal is to be 75% on time for all Stations.

The non-exclusive listing of what comprises A Priority defects pertaining to rubbing boards is “Any rubbing board that is loose, missing or with a gap greater than 6 inches.” There is no listing of C Priority defects for rubbing boards. Notably, though, C Priority defects include A Priority defects that Station Maintenance (or another NYCT unit) has temporarily mitigated but not permanently repaired. (Station Maintenance uses the term “made safe” to describe the process of temporarily addressing a safety hazard pending permanent repair. In the case of rubbing boards, the temporary fix is often the overlay of a plywood “cover board.”)

The meeting further established that A Priority defects must be reported by telephone; all others must be faxed to the respective maintenance offices. It is this telephone call within 24 hours, coupled with a rating of “4” (on a scale of 1 – 4) on the inspection report (discussed later), that constitutes a proper report of an A Priority defect. There was no place on the inspection report to specify “A Priority” or “C Priority.”

**The 2005 and 2006 Rubbing Board Incidents**

After NYCT changed its procedures, two other riders fell to the tracks when defective rubbing boards broke under their weight.

The first incident occurred on May 14, 2005 at the M line’s Central Avenue station in Brooklyn. According to the NYCT “Customer Accident Report” filed by a Station Supervisor, a rider stepped on the rubbing board as he looked for the train. When the board broke, he fell to the tracks. Two customers helped him back onto the platform. He reportedly injured his right leg and was taken to Woodhull Hospital. The Station Supervisor who filled out the accident report noted that the “rubbing board was partially broken off [and] was not broken prior to his stepping on it.”

The second incident occurred on October 25, 2006 at the Number 7 line’s Hunters Point station in Queens when another rider fell to the tracks after stepping on a rubbing board. He reportedly suffered a pain in his left side and was taken to Astoria General Hospital. A station supervisor who later examined the area reported a broken ten-foot long section.

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3 Although the listing of defects does not describe itself as reflecting non-exclusive examples, the ACSO has described the function of the listing that way. This is consistent with a Bulletin that the Track/Infrastructure Division of the Department of Subways issued on March 14, 2008 to all Division employees, which established new “component codes” for rubbing boards, as well as the boards’ support blocks and brackets. Additionally, the Bulletin enumerated the following “defect codes:” “broken/sheared, burnt, corroded, cracked/split, deteriorating, hardware missing, missing, poor support, rotted.” The Bulletin also provided that “The defect severity for obviously defective Rubbing Boards will be RED.” [Emphasis in the original.]
Consultant Survey

Historically, NYCT relied on large-scale station rehabilitations through its capital program to repair rubbing board and other platform-edge defects. However, due to delays in the station rehabilitation program, escalating rehabilitation costs and the deferral of much rehabilitation to future capital programs, NYCT apparently decided on a strategy of smaller-scale component-based programs to address specific station deficiencies on a more frequent cycle.4

Between May 2007 and February 2008, three NYCT Capital Program Management (CPM) consultants surveyed 359 stations, including Kings Highway.5 The primary purpose of the survey was to assess the condition of the various station components, including platform edges, to identify and prioritize future capital work.

The consultants rated each station component on a five-point scale according to a methodology developed by the consultants and spelled out in the Station Inspection Manual prepared specifically for this survey.6 Regarding the Kings Highway station, the consultants inspected it on July 5, 2007 giving it an average rating of 3.75, where a 3 indicates a moderate level of deterioration and a 4 means “partially not functioning as designed and/or a considerable level of damage or deterioration is observed.”7 Their inspection report noted:

The platform edge has moderate deterioration at both edges including cracks, spalls [chips of stone] and split wooden blocks. The rubbing board is separating from edge of concrete platform and gap is not grouted for roughly 45 linear feet at north end of edge [the approximate location at which the boy would later fall]. Without grout, this is a gap of up to 1” between wood rubbing board and concrete edge….There is a 5 linear feet [sic] section of rubbing board that is loose and bowed downward up to 1” below level of platform [emphasis added].”

4 The proposed 2008-13 capital plan states: “NYCT recognizes that there is a tremendous need for ongoing capital investment in passenger stations to address critical components on a more frequent cycle. To meet this goal, the [capital] plan includes the initiation of a station component program that will augment the pace of investment in station rehabilitations and address structurally deficient station components, including platform edges, canopies, stairs, and vent bays.”

5 Parsons Brinkerhoff Quade and Douglas, Inc.; Fay, Spofford, & Thorndike, Inc.; and a joint venture of HDR, Inc. and Daniel Frankfort, PC.

6 Condition Assessment Inspection Program for Passenger Stations: Station Inspection Manual, February 2007. A rating of 1 indicated that the structure functions as designed and that the particular component examined had no apparent deterioration. A rating of 2 indicated that the structure functions as designed and that the particular component examined had minor deterioration. A rating of 3 indicated that the structure functioned as designed and had a moderate level of deterioration. A rating of 4 indicated that the structure was “partially not functioning as designed and/or a considerable level of damage or deterioration is observed.” A rating of 5 indicated that the structure did not function as designed and/or the level of deterioration was such that non-function may be imminent.

7 The Kings Highway Station remains in the capital plan as part of a five-station rehabilitation project along the Brighton Line. As of November 2008, NYCT had received bids for the contract to rehabilitate the five stations – the low bid was approximately $160 million – but had not yet awarded it.
Although the consultants found the above rubbing board safety defects at Kings Highway, and though the Station Inspection Manual required them to report safety concerns to a CPM project manager, the consultants did not do so. The consultants did advise the designated CPM project manager (via e-mail) of 31 dangerous conditions requiring immediate attention identified from their survey of 359 stations. However, while five of those reported conditions involved rubbing boards, none of them was a board at Kings Highway.8

THE KINGS HIGHWAY INCIDENT AND NYCT’S RESPONSE

The Kings Highway Incident

On January 29, 2008, at approximately 6:15 p.m., a 14-year-old boy waited for a Q-Train on the northbound platform of the Kings Highway elevated subway station in Brooklyn. As he leaned over the platform edge to look for the train, he placed his weight on the wooden rubbing board, a strip anchored to the platform’s outer edge to close the gap between the platform and train and prevent damage to both.9 As the train approached the station, the rubbing board gave way and the boy fell to the track. Fortunately, he was able to pull himself back onto the platform before the train arrived. According to the NYCT accident report, he reported that he was treated later at Maimonides Hospital for “bruises to his left side and hand.”

The Roberts Letter

In a letter dated March 2008, NYCT President Howard H. Roberts, Jr. issued a letter to NYCT employees regarding the Kings Highway incident. In that letter, he emphasized the importance of safety and the need to “examine and re-examine every component of our safety procedures.” He also noted:

As a direct result of this event, we have belatedly taken a hard look at our platform inspection procedures and are making changes as a result. . .

The inspections will be guided by a set of standards so deficiencies are reported in a consistent manner against agreed-upon ratings. . .

There is no question that our response to the accident at Kings Highway is improving our procedures. But as an organization, and as responsible

8 To determine what, if any, hazardous conditions at the Kings Highway station had been reported to Station Maintenance following this consultant survey, OIG searched for defects reported between July 2007 and the date of the incident. During that time, there was only one reported rubbing board problem (apparently not related to the Kings Highway incident). A Station Supervisor reported the problem on July 17 and Station Maintenance reportedly completed the repair within 24 hours.

9 NYCT considers the rubbing board, usually made of wood or polyethylene, to be a “sacrificial” element, which acts as a buffer and absorbs impact. NYCT also recognizes that “A major problem with the wood ‘rubbing board’ was maintenance. In addition to frequent painting (safety yellow) wood rapidly deteriorates when exposed to the subway environment both below and above ground.” Source: NYCT Engineering Dept.
members of the human community, we need to be vigilant and try to identify problems before accidents happen. (Emphasis in original.)

President Roberts also called for the reinstitution of track-level inspections, discontinued as the result of “organizational changes in the mid-1990’s,” to supplement those performed by Station Supervisors on the platform.

NYCT Station Survey

Between February 14 and April 9, 2008, Station Maintenance Supervisors inspected all rubbing boards from platform level, identifying 58 rubbing boards with A Priority defects requiring immediate attention.\textsuperscript{10}

In addition to identifying specific rubbing board defects, Station Maintenance also rated each of some 1,100 rubbing boards at virtually all of the 468 stations as being in good, fair, or poor condition.\textsuperscript{11} Overall, 605 rubbing boards (55 percent) were rated good, 370 (34 percent) fair, and 127 (12 percent) poor.\textsuperscript{12} The percent of rubbing boards rated poor ranged from one percent in Manhattan to 18 percent in Queens, and 21 percent in Brooklyn (see Table 1).

\begin{table}[!h]
\centering
\begin{tabular}{|l|c|c|c|c|c|}
\hline
\textbf{Borough} & \textbf{Good} & & \textbf{Fair} & & \textbf{Poor} \\
 & \textbf{No.} & \textbf{Pct.} & \textbf{No.} & \textbf{Pct.} & \textbf{No.} & \textbf{Pct.} \\
\hline
Bronx & 108 & 65\% & 52 & 31\% & 6 & 4\% \\
Brooklyn & 171 & 42\% & 149 & 37\% & 84 & 21\% \\
Manhattan & 263 & 76\% & 79 & 23\% & 3 & 1\% \\
Queens & 63 & 34\% & 90 & 48\% & 34 & 18\% \\
Total & 605 & 55\% & 370 & 34\% & 127 & 12\% \\
\hline
\end{tabular}
\caption{RUBBING BOARD CONDITION BY BOROUGH}
\end{table}

Source: Frequency table prepared by OIG from the raw data compiled by Station Maintenance Supervisors during the station survey conducted from February 14 to April 9, 2008.

\textsuperscript{10} Meanwhile, in a one-month period beginning in early April, OIG commenced its own review by having its investigators conduct platform-level visual inspections of rubbing boards on some 17 platforms in various stations. These inspections revealed safety defects including gaps between boards, as well as boards that were missing or loose. OIG reported these findings to the ASCO of Station Maintenance in a letter dated June 5, 2008.

\textsuperscript{11} The ACSO, Station Maintenance stated that she conducted a verbal orientation for the Station Maintenance Supervisors doing the inspections. At that time, she verbally explained the criteria they were to use in determining whether a rubbing board was in good, fair, or poor condition. These criteria were never reduced to writing.

\textsuperscript{12} The percentages add up to slightly more than 100 because OIG rounded them to the nearest whole number.
OIG staff computed the percent of good, fair, and poor rubbing boards by line. Table 2 below shows the results for the ten lines on which at least 20 percent of all rubbing boards were in poor condition. Predictably, among the worst lines were those with outdoor stations.

**TABLE 2: RUBBING BOARD CONDITION BY LINE**
(Lines with More than 20 Percent of Rubbing Boards Rated “Poor”)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Astoria</td>
<td>14</td>
<td>2</td>
<td>14%</td>
<td>4</td>
<td>29%</td>
<td>8</td>
<td>57%</td>
</tr>
<tr>
<td>Brighton</td>
<td>43</td>
<td>18</td>
<td>42%</td>
<td>15</td>
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<td>23%</td>
</tr>
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<td>Myrtle Avenue</td>
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<td>3</td>
<td>21%</td>
<td>6</td>
<td>43%</td>
<td>5</td>
<td>36%</td>
</tr>
<tr>
<td>Sea Beach</td>
<td>18</td>
<td>7</td>
<td>29%</td>
<td>7</td>
<td>39%</td>
<td>4</td>
<td>22%</td>
</tr>
<tr>
<td>West End</td>
<td>30</td>
<td>9</td>
<td>30%</td>
<td>8</td>
<td>27%</td>
<td>13</td>
<td>43%</td>
</tr>
<tr>
<td>6th Avenue</td>
<td>52</td>
<td>32</td>
<td>62%</td>
<td>7</td>
<td>13%</td>
<td>13</td>
<td>25%</td>
</tr>
<tr>
<td>Crosstown</td>
<td>26</td>
<td>5</td>
<td>19%</td>
<td>8</td>
<td>31%</td>
<td>13</td>
<td>50%</td>
</tr>
<tr>
<td>Culver</td>
<td>25</td>
<td>3</td>
<td>12%</td>
<td>13</td>
<td>52%</td>
<td>9</td>
<td>36%</td>
</tr>
<tr>
<td>Queens Boulevard</td>
<td>60</td>
<td>17</td>
<td>28%</td>
<td>31</td>
<td>52%</td>
<td>12</td>
<td>20%</td>
</tr>
<tr>
<td>New Lots Avenue</td>
<td>14</td>
<td>1</td>
<td>7%</td>
<td>9</td>
<td>64%</td>
<td>4</td>
<td>29%</td>
</tr>
</tbody>
</table>

Source: Frequency table prepared by OIG from the raw data compiled by Station Maintenance Supervisors during the station survey conducted from February 14 to April 9, 2008.

Regarding the Kings Highway station, Station Maintenance Supervisors inspected it on February 14, 2008, after the incident, and rated all four platform-edges as “fair.”

**NYCT Changed Inspection Procedures**

The following are the highlights of inspection requirements enhanced after the Kings Highway incident:

- Station Supervisors must note the condition of rubbing boards and cover boards each time they complete a Daily Station Inspection Report (DSIR), which is every three days, not just when they observe problems.
DSIRs now specifically include rubbing boards and cover boards (but not “expansion boards”) in the “Station Condition” box along with mezzanines and platforms.13

Track Inspectors are now required to look up at the rubbing board and their blocks and supports from track level and report defects.

Station Maintenance must now perform weight-bearing tests on the rubbing boards every six months.

OIG REVIEW

President Roberts responded to the Kings Highway incident by directing enhanced inspection and increased vigilance by NYCT personnel regarding platform-edges in general and rubbing boards in particular. The question remained, though, whether the new requirements and increased attention ensured that NYCT would now consistently maintain the edges and boards in good repair.

To help answer this question, OIG staff interviewed, among others, various officials from Station Operations, the NYCT division that conducts platform-level inspections and makes necessary repairs. OIG also selected as a sample 27 total stations in Brooklyn, Manhattan, and Queens. NYCT had previously evaluated each of these during its system-wide station survey (conducted from February 14 to April 9, 2008) as having platform edges in “fair” or “poor” condition.14 Based on OIG review of Station Maintenance computer records, these 27 stations had 133 C Defects and 26 A Defects reported during the first eight months of 2008.

OIG conducted platform-level visual inspections at each of these stations on August 28-29, and again between September 17-29, 2008 (the OIG Site Visit Periods), and examined the applicable daily station inspection sheets for the period August 18 to September 18, 2008. OIG recorded its observations of the general condition of platform edges at each location during the OIG Site Visit Periods and photographed problem areas. OIG then compared the results to applicable daily inspection reports prepared by Station Supervisors in August and September, as well as the log of defects faxed to Station Maintenance. Finally, OIG discussed the results of this comparison with top Station Maintenance officials.

Through this analysis, OIG determined that: 1) Station Supervisors were not consistently and correctly identifying and reporting hazardous conditions; 2) inspection reports by Station Supervisors were internally inconsistent; 3) different Station Supervisors evaluated the same conditions inconsistently; and 4) so-called “non-safety defects” (which include safety defects

13 An “expansion board” consists of material placed in the expansion joint (located on the platform) during construction to keep foreign substances from entering the joint and diminishing its function. Defective expansion boards can create safety hazards such as tripping, and are encompassed here within the term “platform-edge defects.”

14 A list of these stations is provided as Appendix A.
that have been temporarily mitigated but not permanently repaired) are not fixed within NYCT standards and goals.\(^{15}\)

OIG could not, however, meaningfully evaluate whether A Priority defects (safety-related) were repaired within standards and goals, primarily because safety defects were not consistently identified and reported as such. Even where a safety defect was properly reported, it was immediately reclassified as a C defect (non-safety related) once it was temporarily made safe by repair personnel. Further, NYCT could not readily identify A Defects that were reclassified as C Defects following temporary repair, because NYCT maintained a written record only of faxed-in C Defects, not phoned-in A Defects. The reason given by NYCT for not tracking A Defects was that they supposedly were repaired within 24 hours.

**OIG FINDINGS**

A-Priority Defects Were Not Consistently and Correctly Identified and Reported

OIG observed conditions along platform edges at 23 of the 27 stations that in its view, presented a safety risk, the very definition of an A Priority defect. However, according to the daily inspection reports and maintenance records for the OIG Site Visit Periods, none of the stations sampled contained platform edges with a reported safety defect. To resolve this fundamental disparity, OIG presented its photographs of the 23 problematic stations to top Station Maintenance officials for their assessment. As to 16 of the 23 stations, these officials confirmed that the defective conditions shown affected safety, and should have been identified and reported as A Priority defects to expedite repair.

Inspection Reports Were Internally Inconsistent

OIG’s review revealed comments by Station Supervisors about platform edges that indicated safety defects but which they then rated as non-safety defects. For example, on August 21, 2008 at 116th Street Station in Manhattan (8\(^{th}\) Avenue Line), a Station Supervisor reported a gap between the platform edge and the rubbing board, and that the rubbing board was hanging. These daily inspection reports filled out by Station Supervisors include boxes for “Station Condition,” including rubbing boards, as well as for “Rating” and “Actions/Comments.” Instructions for the “Rating” determination clearly indicate that if any Station Condition has a “priority A defect,” the Station Condition Rating must be a “4” on a scale of 1 – 4. Nevertheless, the Station Supervisor at 116\(^{th}\) Street gave the rubbing boards a Rating of “2” although a hanging rubbing board unquestionably constitutes an A Priority defect.

To seek clarification of apparent inconsistencies between language describing a platform-edge condition as a safety defect, and the priority accorded the repair of that condition by the manner in which it was reported (as a faxed-in, lower-rated non-safety defect), OIG shared with the

\(^{15}\) For purposes of this report, “standards and goals” refers to the definition of A Priority and C Priority defects and repair timetables established by Station Maintenance as discussed above (page 3).
Station Maintenance officials a sample of 25 Comments containing such inconsistencies culled from the daily inspection reports. While these officials noted the difficulty of making determinations based upon the Comments alone, they concluded that 22 of the 25 Comments indicated A Defects – whereas Station Supervisors had originally classified none of them that way. Further, the Station Maintenance officials advised that Station Operations Division middle managers (Station Maintenance Supervisors and Station Superintendents) should promptly clarify the actual nature of the defect.

**Inconsistent Determinations by Different Station Supervisors**

OIG compiled a chronology of the daily inspection reports for five stations over approximately one month (the Case Studies).

As to one of these, the Newkirk Avenue (Brooklyn) Case Study, the Station Maintenance officials agreed with OIG’s conclusion that the inconsistencies were troubling. Indeed, on five different days during a nineteen-day period as reflected in the relevant inspection reports, with no intervening repair, two inspectors described the rubbing boards as “ok,” two others described them as “loose” (a safety defect) and a fifth noted that “rubbing boards in need of repair.”

While recognizing that the other four case studies contained inconsistencies, the Station Maintenance officials described them as “typical,” indicating that some Station Supervisors likely conducted detailed inspections, while others simply surveyed the platform from a distance because the demands of that day or that shift did not allow for a more thorough inspection. The officials further noted that the thoroughness of the inspection might also relate to the time of day. For example, they observed, those inspecting an outdoor platform on the nightshift might have had more time to conduct the survey but less visibility, so different comments were possible.

**“Non-Safety (C) Defects” Were Not Repaired Within Standards and Goals**

As explained above, NYCT’s standards and goals required that non-safety defects, including safety defects that have been temporarily mitigated but not permanently repaired, must be completely fixed within 60 days, with an on-time performance goal of 75%.

However, out of the 133 C Defects reported during the first eight months of 2008 for the 27 stations sampled by OIG, only 54 (40.60%) were repaired within 60 days. Further, Station Maintenance officials informed OIG that the backlog of defective rubbing boards is so great that the goal for bringing these boards into a state of good repair is now December 2009.

**CONCLUSION**

Rubbing boards with safety defects resulting from damage and deterioration pose a serious, predictable and widespread safety hazard, especially on subway lines with outdoor stations. In his letter to all NYCT employees in March 2008 following the Kings Highway incident, President Roberts issued his directive that rubbing board inspections be performed at track- and
platform-level: “The inspections will be guided by a set of standards so deficiencies are reported in a consistent manner against agreed-upon ratings.”

Yet, despite increased awareness, new procedures and good intentions, OIG’s review makes clear that a highly significant number of platform-edge conditions sampled were not correctly identified and reported by NYCT personnel as safety defects. Rather, those defects were incorrectly treated as “non-safety defects,” which created a false impression of system safety and significantly delayed repair.

Clearly, accuracy and consistency in identifying and reporting safety issues is essential to make the repair process more effective and efficient. Ensuring accurate identification and consistent reporting requires full understanding and appreciation of applicable safety standards; increased training, supervision and coordination of those who inspect and repair platform edges; and greater executive oversight. Given the present fiscal constraints, NYCT must be even more vigilant that maintenance requirements with safety implications are implemented without delay.

**RECOMMENDATIONS**

To improve the accuracy and consistency of its platform-edge inspections and repairs, we recommend that NYCT do the following:


2. Provide intensive and continuing training of those who inspect platform edges to ensure that they have a full understanding and appreciation of what constitutes a safety defect and how to report it.

3. Require closer immediate supervision and coordination to ensure that safety defects are correctly identified and reported, and to expedite safety repairs by promptly clarifying inconsistent inspection reports.

4. Provide constant and consistent executive oversight to ensure that safety standards are clear, and that inspection and reporting procedures are effective.

**NYCT FOLLOWUP RESPONSE**

NYCT responded to OIG’s preliminary report in writing (Appendix B) and by cooperative meetings. Essentially, NYCT asserts that it is establishing a process to bring together for instruction all Station Operations personnel involved in platform edge inspections and repair. This process is to include both current employees and new hires. It will focus on ensuring knowledge of the proper definitions of the type of defects (“A” vs. “C”); proper inspection, reporting and notification procedures; and the importance of using a consistent approach to obtain accurate results.
In particular, President Roberts noted that specific actions pertaining to its effort would include:

- Developing presentations, given by Station Maintenance management to Station Supervisors, on the proper inspection procedures, including reporting requirements.
- Supplementing the above with joint on-site inspections, for the purpose of instruction, with Station Supervisors and Station Maintenance personnel.
- Establishing an instructional portfolio of photographic examples of defects and the appropriate classification.
- Highlighting Rubbing Board Inspections as a regularly scheduled topic at Stations Operations Staff meetings.
- Amending the existing Station Supervisor Induction Program to include a module on rubbing board inspections.
- Adding a similar module to Supervisory Refresher Training. (Appendix B at page 2.)

Regarding the timeline for repair of so-called “non-safety defects,” President Roberts stated:

When we undertook our systemwide survey in March, we categorized all of the platform edges as either “good,” “fair,” or “poor.” We effectively suspended our 75 percent/60 day routine repair program while we undertook a comprehensive repair project to bring all of the edges to a “good” condition by the end of December 2009. (Appendix B at page 2.)

NYCT anticipates benefits for the maintenance program in general from its Line General Manager reorganization. According to President Roberts:

This reorganization creates accountability at the Line level and provides the authority to local management to use available resources to achieve safety and operation-based goals. Line General Managers will be charged with responsibility to coordinate with the Maintenance General Managers to ensure that all aspects of system maintenance are integrated into a single plan that maximizes the use of available resources while reducing the impact of such activities on the operation of train service. (Appendix B at page 3.)

The OIG recognizes that NYCT’s new initiatives regarding rubbing boards are an improvement over earlier practices, but we remain concerned about the safety implications of our findings given the dangers posed by these boards, coupled with the history of problems NYCT has faced regarding their inspection and repair. We will be monitoring this effectiveness of the improved inspection process during 2009 and the promise to bring rubbing boards into a state of good repair by the end of this year.
## APPENDIX A
### IG’s Sample of 27 Stations

<table>
<thead>
<tr>
<th>Station Name</th>
<th>Line</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brooklyn</strong></td>
<td></td>
</tr>
<tr>
<td>7th Avenue</td>
<td>BMT Brighton Line</td>
</tr>
<tr>
<td>Kings Highway</td>
<td>BMT Brighton Line</td>
</tr>
<tr>
<td>18th Avenue</td>
<td>IND Culver Line (F Train)</td>
</tr>
<tr>
<td>Avenue I</td>
<td>IND Culver Line (F Train)</td>
</tr>
<tr>
<td>Avenue P</td>
<td>IND Culver Line (F Train)</td>
</tr>
<tr>
<td>Avenue U</td>
<td>IND Culver Line (F Train)</td>
</tr>
<tr>
<td>Avenue X</td>
<td>IND Culver Line (F Train)</td>
</tr>
<tr>
<td>Bay Parkway</td>
<td>IND Culver Line (F Train)</td>
</tr>
<tr>
<td>Kings Highway</td>
<td>IND Culver Line (F Train)</td>
</tr>
<tr>
<td>Junius Street</td>
<td>IRT New Lots Line</td>
</tr>
<tr>
<td>Newkirk Avenue</td>
<td>IRT New Lots Line</td>
</tr>
<tr>
<td>Pennsylvania Avenue</td>
<td>IRT New Lots Line</td>
</tr>
<tr>
<td>President Street</td>
<td>IRT New Lots Line</td>
</tr>
<tr>
<td>Rockaway Avenue</td>
<td>IRT New Lots Line</td>
</tr>
<tr>
<td>Saratoga Avenue</td>
<td>IRT New Lots Line</td>
</tr>
<tr>
<td>Van Siclen Avenue</td>
<td>IRT New Lots Line</td>
</tr>
<tr>
<td>Winthrop Street</td>
<td>IRT New Lots Line</td>
</tr>
<tr>
<td><strong>Manhattan</strong></td>
<td></td>
</tr>
<tr>
<td>50th Street</td>
<td>IND 8th Avenue Line</td>
</tr>
<tr>
<td>103rd Street</td>
<td>IND 8th Avenue Line</td>
</tr>
<tr>
<td>116th Street</td>
<td>IND 8th Avenue Line</td>
</tr>
<tr>
<td><strong>Queens</strong></td>
<td></td>
</tr>
<tr>
<td>Central Ave</td>
<td>Myrtle Avenue Line</td>
</tr>
<tr>
<td>Forest Avenue</td>
<td>Myrtle Avenue Line</td>
</tr>
<tr>
<td>Seneca Ave</td>
<td>Myrtle Avenue Line</td>
</tr>
<tr>
<td>85 St/Forrest Parkway</td>
<td>BMT Jamaica Line</td>
</tr>
<tr>
<td>111th Street</td>
<td>BMT Jamaica Line</td>
</tr>
<tr>
<td>121st Street</td>
<td>BMT Jamaica Line</td>
</tr>
<tr>
<td>Woodhaven Blvd</td>
<td>BMT Jamaica Line</td>
</tr>
</tbody>
</table>
New York City Transit

March 30, 2009

Mr. Barry L. Kluger
MTA Inspector General
Office of the Inspector General
Two Penn Plaza, 5th Floor
New York, NY 10121

Re: MTA/OIG #2008-15

Dear Mr. Kluger:

This is in response to your letter of January 30th, in which you set forth your preliminary findings regarding the inspection and correction of platform-edge safety defects at New York City Transit (NYCT). Specifically, you concluded that despite increased awareness, new procedures, and good intentions, NYCT inspectors are not consistently or correctly identifying a significant number of platform edge conditions as safety defects, thus impeding the prioritization and completion of repairs. The italicized remarks which follow are excerpted from your summary of findings and are followed by our response.

➤ Station Supervisors, who are responsible for conducting platform-level inspections at NYCT subways stations, failed to correctly identify and report platform-edge safety defects visible at 16 of 23 stations (70%) sampled by OIG, as confirmed by top Station Maintenance officials upon review of NYCT records and OIG photographs.

This finding reflects the weaknesses associated with inspections conducted by Station Supervisors. For safety reasons, we direct Station Supervisors to get no closer than 2½ feet from the platform edge when conducting platform edge inspections unless flagging is in place. As a result, their inspections are limited to what they can see from that distance. This limitation, combined with a lack of formal instruction on the inspection procedure, has resulted in DOS taking a number of actions to ensure a more thorough inspection process. Procedures have been established to require Station Maintenance and Track personnel to provide close-up inspections under proper flagging. The Station Maintenance inspections occur twice per year; Track inspections are twice weekly. A detailed manual for use by Station Maintenance personnel has been created. It has been utilized in its draft form since May 2008 and will be formally issued by April 2009. Track personnel are guided by Bulletin 08-02 as it relates to the identification and definition of defects. Station Supervisors are still required to inspect platform edges and report any defects they see, but the more accurate and complete reports are prepared by Station Maintenance and Track personnel, who are able to get close to the platform edge and also see beneath it.
Numerous findings in the report reference the quality of the supervisory inspections, the categorization of defects (safety vs. non-safety), and general inconsistencies in the descriptions of the same rubbing board by different supervisors over a period of time when no repairs were made. In response to these findings, DOS is establishing a process that will bring all Stations personnel who have a hand in platform edge inspections together for instruction. The process will address both current employees and new hires and will focus on ensuring knowledge of the proper definitions of the type of defects ("A" vs. "C"), the reporting and notification process, and the importance of consistency in all of the above topics.

Specific actions pertaining to this effort will include:

- Developing presentations, given by Station Maintenance management to Station Supervisors, on the proper inspection procedures, including reporting requirements.
- Supplementing the above with joint on-site inspections, for the purpose of instruction, with Station Supervisors and Station Maintenance personnel.
- Establishing an instructional portfolio of photographic examples of defects and the appropriate classification.
- Highlighting Rubbing Board Inspections as a regularly scheduled topic at Stations Operations Staff meetings.
- Amending the existing Station Supervisor Induction Program to include a module on rubbing board inspections.
- Adding a similar module to Supervisory Refresher Training.

While NYCT requires that repair of so-called "non-safety defects" (which include safety defects that have been temporarily repaired) be completed within 60 days, its stated goal is to address 75% of those defects on time. Nevertheless, NYCT only addressed within 60 days some 41% of those rubbing board defects reported in the first eight months of 2008. Further, the backlog of defective rubbing boards is so great that the goal for bringing these boards into a state of good repair is now December 2009.

When we undertook our systemwide survey in March, we categorized all of the platform edges as either "good," "fair," or "poor." We effectively suspended our 75 percent/60 day routine repair program while we undertook a comprehensive repair project to bring all of the edges to a "good" condition by the end of December 2009. To date, all 134 "poor" edges have been upgraded to "fair" condition, and 214 "fair" edges have been upgraded to "good." As of February 23, 2009, 825 platform edges were categorized as "good," 297 were "fair," and 0 were "poor." The 297 "fair" condition platform edges are to be brought to "good" condition before the end of the year. When this program is complete, we will re-institute a revised routine maintenance goal.
A final important point that I would like to include regarding our plans to address deficiencies in platform edge maintenance is the benefits that we anticipate achieving via our Line General Manager reorganization. This reorganization creates accountability at the Line level and provides the authority to local management to use available resources to achieve safety and operation-based goals. Line General Managers will be charged with responsibility to coordinate with the Maintenance General Managers to ensure that all aspects of system maintenance are integrated into a single plan that maximizes the use of available resources while reducing the impact of such activities on the operation of train service. To date, this program has been successful, and I am anticipating the roll-out to the entire system during 2009.

Thank you for your report and for taking the time to come meet with us. Please let me know if there are any follow-up questions we need to address.

Sincerely,

Howard H. Roberts, Jr.
President

c: S.A. Feil
    A. Wojcik
    C. Kennedy