



Strengthening the Safety, Oversight and Coordination of Construction, Demolition and Abatement Operations

**Report & Recommendations to
Mayor Michael R. Bloomberg**



**Construction, Demolition & Abatement Working Group
Deputy Mayor Edward Skyler, Chair**

July 2008

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I. Executive Summary

On August 18, 2007 a fire broke out at the former Deutsche Bank building at 130 Liberty Street in Manhattan that tragically took the lives of New York City Firefighters Robert Beddia and Joseph Graffagnino. The City immediately recognized that the fire raised broader questions about the way that construction, demolition and abatement operations are regulated and conducted, and the extent to which the activities of the City agencies primarily responsible for overseeing these operations are coordinated.

In New York City, the Department of Buildings (DOB) permits building construction and demolition, and DOB and the Fire Department (FDNY) conduct inspections of construction and demolition sites. The Department of Environmental Protection (DEP) regulates and inspects abatement operations in the five boroughs. Although these agencies worked together in the weeks immediately following the fire to change their inspection and data-sharing practices,¹ it soon became apparent that a more comprehensive approach was needed. In the fall of 2007, Deputy Mayor Edward Skyler convened a Working Group of DOB, DEP, FDNY, the Mayor's Office of Operations, and the Law Department to review how the City regulates construction, demolition and abatement operations, including agency practices regarding enforcement, and the way these operations are conducted in the field. In particular, the Working Group sought to assess:

- The extent to which multiple City agencies have overlapping regulatory responsibilities for the same activities, and each agency's particular regulatory role;
- The information collected by stakeholder agencies and how that information is used and stored;
- The extent to which agencies coordinate their enforcement/oversight roles through information sharing and other collaborative arrangements;
- Current inspection practices, including inspector training and cross-training in areas of overlapping jurisdiction;
- The rules governing the safe conduct of construction, demolition and abatement operations and whether those rules are followed in the field; and
- The number of buildings in the City owned by federal, state and international entities, and the City's ability to enforce the Fire and Building codes at those properties.

The goal of this assessment was to make recommendations to improve the safety of construction, demolition and abatement operations for workers, first responders, and the general public. The Working Group identified 28 issues and developed 33 recommendations designed (i)

¹ For example, on November 7, 2007, the Fire Department announced a series of reforms to its inspection practices, see Press Release, Fire Commissioner Scoppetta announces changes to Citywide Building Inspection Program, available online at http://www.nyc.gov/html/fdny/html/pr/2007/110707_8507.shtml.

to strengthen internal agency practices, including training and permitting; (ii) to enhance inter-agency coordination of critical activities, including inspections and data sharing; and (iii) to make these operations safer in the field. They include cross-training DEP, FDNY and DOB inspectors in a set of common fire- and life-safety issues that should be enforced across jobsites; implementation of a permit requirement for complex abatement jobs; and increasing inspection and certification requirements for the maintenance of standpipes on demolition and construction sites.

As a first step, the Working Group developed detailed process maps that show how the abatement, demolition and FDNY inspection processes work (see Attachments A, B, and C). These process maps formed the basis for an in-depth review of how the City permits and inspects these activities that took place over several months, and included site visits to abatement and demolition jobs. In connection with this review, the Working Group undertook a comprehensive examination of existing laws, rules, and regulations—including the new Construction and Fire Codes—to determine the changes that would be needed to implement the recommendations in this report.

Although the Working Group’s review took place over several months, DOB, FDNY and DEP have not waited to implement some of the recommended changes in this report to strengthen the City’s oversight and coordinated regulation of construction, demolition and abatement operations. For example, DOB and DEP have implemented systems to notify FDNY of significant demolition and abatement jobs; DOB and FDNY have cross-trained their inspectors on relevant structural and fire-safety issues; and all three agencies have conducted initial reviews of their inspection protocols and safety requirements. Other recommendations will require legislation, or consultation with affected industries, and will take more time to implement. Making construction, demolition and abatement operations in New York City safer will require a sustained and unrelenting effort, and implementing the recommendations in this report is an important step to achieving that goal.

Working Group Recommendations

Abatement Operations

1. DEP should regularly notify FDNY and DOB about large and/or complex abatement jobs that meet thresholds to be determined by DEP, FDNY, and DOB.
2. DEP should establish a permit requirement for certain large and/or complex abatement jobs based on thresholds to be determined by DEP, DOB, and FDNY.
3. DEP should require building owners and/or air monitors on abatement jobs to notify DEP when abatement work at a particular site is complete.
4. DEP should promulgate clear guidance to contractors about how to maintain proper egress at abatement sites and enforce this requirement in the field.

5. DEP should require that egress conditions be recorded daily in the abatement contractor's logbook and kept on site.
6. DEP should require that all materials used in the construction of temporary enclosures for abatement work be non-combustible or flame-resistant.
7. DEP should require the installation of a central negative air "cut-off switch" or similar mechanism at abatement jobs that meet thresholds to be established by DEP, FDNY, and DOB.
8. DEP should develop written protocols, such as a checklist or other guidance, to ensure that its inspections are comprehensive and consistent at all abatement jobs.
9. DEP inspectors should be trained to inspect and address egress and other safety requirements at abatement sites.
10. DEP should have the authority to enforce provisions of the Fire and Building Codes at abatement sites, including issuing Notices of Violation and other penalties.
11. DOB should make permanent its capacity to have inspectors and other personnel respond to abatement sites—based on criteria to be established by DOB, DEP and FDNY—to augment DEP and FDNY inspections at a particular site. DOB inspectors and other responders must have proper training and personal protective equipment to do this job.
12. DEP should formally establish a policy that strictly limits simultaneous abatement and demolition work, and requires a variance—including review by DOB and FDNY—to undertake it.

Demolition Operations

13. DOB should issue full demolition permits only after an applicant certifies that the site does not need to be abated, or that abatement is complete.
14. DOB should amend its rules and/or seek legislation to increase permitting requirements for all building demolitions using hand-held mechanical devices, including the submission by an engineer of means and methods used and detailed mechanical equipment calculations and details.
15. DOB should notify FDNY whenever a construction or demolition permit is issued.
16. DOB should amend its rules and/or seek legislation to require additional site safety coordinators at certain stages of the demolition process for buildings that are 25 stories or more, and at demolition jobs over 500,000 square feet, regardless of height.

17. DOB should require that Site Safety Managers conduct daily checks of standpipe connections and valves, and a weekly tracing of the standpipe to verify that it has not been breached.
18. DOB should amend its rules and/or seek legislation to require uniform color-coding of standpipe and sprinkler system lines.
19. DOB should amend its rules and/or seek legislation to require a plumbing or fire-suppression license and a permit to cut and cap standpipes or sprinklers during full demolition.
20. FDNY and DOB should study the feasibility of requiring the installation of a pressurized standpipe alarm system (or other security measures) on new building and full demolition jobs.
21. DOB should amend its rules and/or seek legislation to require pressure testing by a licensed plumber or fire suppression contractor of every 75 feet of standpipe in buildings under construction.
22. The Citywide smoking ban at construction, demolition and abatement sites should be strengthened and enforced with a zero-tolerance approach.

Inspection Processes at DOB, DEP and FDNY

23. DOB, FDNY, and DEP should review their inspection criteria and make changes to ensure that, to the extent possible, inspections are prioritized on the basis of risk.
24. DOB, FDNY, and DEP should create common safety protocols incorporating high-priority safety issues within the inspection capacity of all three agencies, and should cross-train inspectors to address these common safety issues.
25. DOB, FDNY, and DEP should implement a system to share relevant results of inspections of buildings that meet agreed-upon criteria. As part of this effort, FDNY should develop a computer-based process to share inspection data internally and with DOB and DEP.
26. DOB, FDNY, and DEP should review their inspection programs to ensure that they have sufficiently robust quality assurance controls in place.
27. DOB should identify “high-risk” alteration sites and develop an appropriate inspection program; FDNY should determine whether and how frequently these high-risk alteration sites should be inspected.

FDNY Demolition Inspections

28. FDNY should amend Rule 11-01 and other inspection requirements to establish the appropriate frequency and scope of demolition inspections by the Department.
29. FDNY should incorporate inspections of buildings under demolition that take place every 30 days or at any higher frequency into its Building Inspection Safety Program (“BISP”) Tracking System.
30. FDNY should develop an automated, computer-based system that facilitates the sharing of inspection data throughout the agency, as well as with DOB and DEP. The Department should also accelerate its transition from paper-based to computer-based data collection and storage for inspections and other processes.
31. FDNY should streamline its process for referring non-emergency conditions to DOB.
32. DOB, DEP and FDNY should update their websites and publications to provide comprehensive and coordinated guidance about the construction, demolition and abatement processes, including how to file for and conduct these operations safely, and the regulatory schemes that are triggered by these operations.

Non-Jurisdictional Buildings

33. The City should pursue state and federal legislation to require that any building built or demolished in New York City is subject to the City’s Building and Fire Codes, regardless of owner. Until that requirement is in place, the City should seek to enter into agreements with Federal, State and international building owners to allow DOB and FDNY to conduct inspections and assure code compliance so that these agencies have critical information about conditions at these properties that could affect public safety.

II. Abatement Operations

Asbestos abatement in New York City is regulated by DEP under the Asbestos Control Program (ACP).² Under DEP rules,³ a building owner who wants to renovate, alter or demolish a property must first abate any asbestos-containing material (ACM) in the affected area in accordance with applicable Federal, State, and local rules and regulations. Each year, approximately 5,000 abatement jobs take place in New York City; some are stand-alone abatements, and some are undertaken in connection with other construction or demolition work.

The size and scope of an abatement job can vary dramatically, from removing a small amount of asbestos as part of a pipe repair, to the abatement of entire building floors and, occasionally, entire buildings. All abatement must take place in a controlled work area, and large jobs⁴ require the establishment of a containment area, including decontamination enclosure systems, negative air pressure, isolation barriers, and sealing with plastic sheeting. While the vast majority of asbestos abatements occur without incident, as a result of the extensive review of the abatement process, the Working Group has identified areas where oversight can be strengthened and the safety of abatement operations can be enhanced.

The Working Group conducted an end-to-end review of the abatement process, including how asbestos abatement is conducted in the field, to determine what, if any, additional measures should be taken to enhance worker and public safety. As a result of this review, the group developed recommendations to (i) strengthen the City's oversight of asbestos-abatement jobs; (ii) improve inter-agency awareness of abatement activity throughout the City; (iii) enhance DEP's inspection practices;⁵ and (iv) improve job-site safety by requiring that abatement contractors meet critical safety requirements, including maintenance and monitoring of sufficient egress during abatement operations.

A. Current Abatement Process

In most cases, the abatement process begins when a building owner hires a certified⁶ asbestos investigator to determine whether ACM will be disturbed in connection with some underlying work to be done at the property. A flowchart of the abatement process as of December 2007 is included as Attachment A. If abatement is not required, the owner/investigator prepares an ACP 5 form certifying that there is no ACM present, or that the scope of work does not meet the threshold for filing with DEP.⁷ While an ACP 5 may be submitted directly to DEP, in practice, these forms are usually submitted to the DOB in connection with a request for a building permit.

² DEP's asbestos enforcement powers derive from Section 24-146.1 of the Administrative Code, which is part of the City Air Pollution Control Code (the "Air Code"). Along with enforcing the City Air Code and abatement rules, DEP also enforces state and federal provisions regarding asbestos.

³ See 15 RCNY § 1-01 et seq.

⁴ See id. § 1-02.

⁵ As used in this document, the term "Inspections" is limited to those inspection types and inspection units that deal with asbestos abatement or full demolition.

⁶ DEP certifies Asbestos Investigators, see RCNY § 1-16.

⁷ Abatement notification is required if a project contains 25 or more linear feet, or more than 10 square feet of friable ACM, 15 RCNY § 1-02 (defining "asbestos project"); *id.* at §§ 1-22 to 1-26 (ACP filing requirements).

If ACM is present, the building owner must hire a licensed abatement contractor to remove it, and an independent air-monitoring firm⁸ to monitor the work. Under the current process, the contractor must submit an ACP 7 form to DEP's ACP Technical Review Unit ("TRU") at least seven days before abatement work is scheduled to begin. If the form is complete, it is assigned an identification number, stamped and returned to the contractor for posting at the jobsite. The TRU enters the form into its abatement-project database⁹ and notifies the Department of Sanitation about the job.¹⁰ If the ACP 7 indicates that the abatement is being conducted in connection with a demolition, boiler or sprinkler replacement, renovation or fireproofing replacement, DEP sends a copy of the form to the appropriate DOB Borough Office.¹¹

Under the current process, a contractor must start abatement on the date indicated on the ACP 7, unless the scope of work requires a variance from DEP rules. A variance is required anytime that a project's unique circumstances prevent abatement work from complying with DEP rules. If a variance is required, the contractor must submit an ACP 9 form to DEP along with the ACP 7. DEP's Technical Review Unit (i) reviews the variance request and abatement plan to determine if an inspection is required; (ii) conducts any necessary inspections; and (iii) approves the variance where warranted, provided that the ACP 7 is otherwise complete.

An abatement jobsite is subject to inspection by DEP at any time from the commencement of abatement (i.e., the date indicated on the ACP 7 form) through the completion of the job, which is provided as a projected date on the ACP 7 form. However, contractors are not currently required to notify DEP when abatement is complete. During the last five fiscal years, DEP has inspected an average of 43% of sites for which an ACP 7 has been filed. If violating conditions are found, an inspector can issue a stop work order (SWO) and/or issue other violations that the contractor is required to remedy. In the case of serious violations, or violations arising out of public complaints, DEP will conduct a follow-up inspection to confirm that the violation has been addressed.

The Working Group identified three issues that should be addressed to strengthen DEP's general oversight of abatement jobs in New York City:

Issue 1: No formal FDNY and DOB notification of abatement jobs. Large abatement jobs can impact fire safety (for example, egress and fire-suppression systems) and may require significant interior non-structural demolition. This kind of work requires filings for DOB permits, and the project may ultimately be subject to inspections by

⁸ It is illegal to hire an air monitor through the abatement contractor; the air monitor must be independent of the contractor for any abatement job, see RCNY § 1-36(a).

⁹ Among other things, the database records a project's start and end dates, site location, and the types of materials that will be used on the job.

¹⁰ The Department of Sanitation has jurisdiction over the storage, transport and disposal of ACM material, see 16 RCNY § 8-01 et seq.

¹¹ DEP rules provide for the submission of an ACP 7 directly to DOB when abatement is part of a demolition, renovation or similar type of work. For projects that do not require DOB approval, the ACP 7 must be filed with DEP. See 15 RCNY §§ 1-23 to 1-26.

FDNY. Until recently, DEP did not formally notify DOB and FDNY before abatement operations commenced.¹²

Issue 2: Additional oversight of large and/or complex abatement jobs. Under the current process, unless a variance from DEP rules is required, an abatement contractor can commence work on the date indicated on an ACP 7 regardless of the size or complexity of the job. The Working Group agreed that an additional level of review should be required for certain large jobs or complex that require interior, non-structural demolition, or that could otherwise affect fire and site safety for workers, first responders and the public.

Issue 3: DEP notification that abatement work is complete. DEP receives information about the start date and projected end date for an abatement job, but does not receive notification that a particular job is complete. This makes it difficult to track the total number of ongoing abatement projects citywide.

Recommended Changes to the Abatement Process

Rec. 1: DEP should implement an inter-agency notification process for abatement jobs that meet thresholds agreed to by DEP, FDNY and DOB.¹³ The notification should include relevant information about a particular abatement, including egress impacts, and other clearly defined information¹⁴ to determine whether further action, including inspections or other oversight by DOB and FDNY is needed.

Rec. 2: DEP should establish a permit requirement for abatement jobs that meet thresholds to be determined by DEP, DOB, and FDNY.¹⁵ DEP should issue the permits, which could be administered by a joint DEP/DOB technical plan examination unit, to ensure that the process is streamlined for building owners and abatement contractors. FDNY and DOB would be notified of all abatement jobs that require a permit, in addition to

¹² Under a recently instituted practice, if the amount of ACM to be abated is greater than 7,500 square feet or linear feet, DEP notifies the FDNY Bureau of Fire Prevention (“BFP”) about the project (see Attachment A.1 at steps 3A.06 and 3A.08). The BFP distributes the information to FDNY Operations, which sorts the ACP 7 information and forwards it to the relevant battalion(s). The battalions then forward the information to field units to conduct any required inspection(s) (see Attachment C.1 at steps 2A.01-2A.05). This new step in the process increases FDNY’s awareness of situations that could potentially affect public safety.

¹³ FDNY, DEP and DOB have agreed that DEP will send FDNY notice of any abatement job: (i) In a building, excluding roofs and one- or two-family homes, that is 75 feet or higher and the floor area under containment is 7,500 square feet or greater on any single floor; or (ii) In a building that is 75 feet or higher and the area under containment consists of the entire floor, regardless of size; or (iii) In a building that requires an asbestos abatement permit pursuant to standards promulgated by DEP.

¹⁴ This relevant information will be provided in a guidance document created by DEP, FDNY, and DOB.

¹⁵ Under the thresholds that the Working Group discussed, DEP would require an asbestos abatement contractor to obtain a DEP-issued permit for any abatement job that would: (i) affect the maintenance of the means of egress in the building, as regulated by § 1027 of the new Fire Code and defined under § 1002 of the new Fire Code; (ii) affect the fire protection system in the building, as defined under § 902 of the new Fire Code; or (iii) require construction, alteration, or demolition work that would otherwise require a DOB-issued permit, as provided in Admin Code § 28-105.1 and subject to the exemption under Admin. Code § 28-105.4.2.1. DEP has begun working with the asbestos abatement industry to address the impact of the new permitting regime and ensure that this recommendation is implemented in a practical, effective manner.

any other notifications that may be mandated pursuant to Recommendation 1. In addition, DEP, DOB and FDNY should create a shared database of jobs that meet the thresholds developed pursuant to Recommendations 1 and 2.

Rec. 3: DEP should amend its rules and/or seek legislation to require building owners and/or air monitors to notify DEP when abatement work is complete and should implement a system to audit the notifications.

Each of these recommendations is reflected in Attachment A.1: “Proposed Abatement Operations in New York City.”

B. Abatement Operations

Abatement operations are highly regulated and, for large abatement projects, include extensive site preparation and post-abatement clean-up in accordance with the DEP abatement rules (see Attachment A at steps 3.27 through 3.38). These rules set forth the requirements for the installation of worker decontamination systems, the erection of partitions, extensive pre-cleaning and other steps that must take place prior to abatement. During abatement, the contractor is required to (among other things) maintain emergency/fire exits or establish alternate exits,¹⁶ and to seal entries not used for worker entry or emergencies.¹⁷

Asbestos-containing material must be removed using a “wet method,” which prevents the spread of fibers.¹⁸ After stripping, the abatement area must be cleaned to remove all visible residue. Finally, the Abatement Contractor must apply a thin coat of a pigmented encapsulating agent to all surfaces in the work area from which ACM was removed, to seal-in non-visible fibers.¹⁹ Large asbestos jobs are required to use negative air pressure ventilation equipment, a portable local exhaust system designed to contain fibers within the containment area. The negative air pressure ventilation equipment must operate 24 hours a day from the time isolation barriers are established, through successful clearance air monitoring.²⁰ Throughout the abatement process, an independent Air Monitoring Technician takes air samples to check that levels of airborne fibers are within the prescribed limits,²¹ and the abatement contractor must maintain a project logbook that records inspections and personnel on site.²² Under the rules, the Contractor is required to check exits daily for the duration of abatement work.²³

¹⁶ See 15 RCNY §§ 1-81(p), 1-125(m).

¹⁷ See *id.* at §§ 1-81(q), 1-125(n).

¹⁸ Dry removal is prohibited under the ACP Rules without EPA approval, *see id.* § 1-102(a), and can be prosecuted as a federal crime.

¹⁹ See *id.* at § 1-102(g).

²⁰ Section 1-91 of the ACP Rules establishes engineering controls which incorporates use of negative air ventilation equipment. DEP rules provide detailed requirements for the use of negative air pressure during an abatement job and provide that upon the loss of negative air pressure, abatement shall stop immediately and shall not resume until power is restored and negative air pressure ventilation equipment is operating again.

²¹ See *id.* §1-41.

²² See *id.* §§ 1-92(a)(2), 1-94(e).

²³ See *id.* §§ 1-81(p), 1-125(m).

Members of the Working Group visited several abatement sites to observe these operations in the field and noted three issues that should be addressed:

Issue 4: **Maintenance of sufficient egress and safety conditions during abatement work.** DEP rules require maintenance of emergency exits and that all exits be checked daily during abatement operations. However, contractors are not currently required to record egress conditions in the required on-site logbooks,²⁴ and the Working Group found several instances where a contractor was not entirely familiar with how to properly maintain egress at a site.

Issue 5: **Use of fire-retardant materials in asbestos abatement jobs.** Abatement operations require the establishment of a containment area, which can be achieved using many different materials, including polyethylene sheeting and plywood. The DEP rules set out materials requirements for partitions, wall surfaces, and plastic sheeting,²⁵ but do not require that these materials be fire-retardant.²⁶

Issue 6: **Centralized negative air pressure cut-off mechanism.** Negative air pressure (“negative air”) must be established during large abatement jobs to maintain the integrity of a containment area. In general, these negative air units are independent of one another and currently there are no provisions for shutting-down all units during a fire emergency. Under certain fire conditions, negative air units may present a unique firefighting hazard because they can change the dynamics of normal fire and smoke movement. They have the potential to “pull” fire and smoke down to floors below a fire if the negative air continues to operate while a fire is burning. Currently, the rules do not require a negative air pressure cut-off switch, or any means by which first responders could shut down negative air equipment from a central location in the event of a fire.

Recommended Changes to Abatement Operations

Rec. 4: DEP should (i) amend its rules and/or seek legislation to clarify for contractors the requirement to maintain egress at abatement sites and (ii) issue guidance to assist

²⁴ See 15 RCNY § 1-94(e) (“Inspections, observations, and unusual incidents (e.g., barrier damage, contamination beyond the work area, etc.) shall be documented in the log by the asbestos handler supervisor.”). See also *id.* § 1-92(a)(2) (requiring logbooks to identify, among other things, the facility, the building owner, each work area, and worker respiratory protection used); *id.* § 1-02 (defining log as “an official record of all activities that occurred during the project” and requiring the log to contain various information).

²⁵ See *id.* § 1-81(1) (requiring abatement contractors to construct partitions out of conventional 2x3 wood or metal stud framing and to apply solid construction material (e.g., plywood) of at least 3/8-inch thickness). In addition to the isolation barriers, floor and wall surfaces are required to be sealed with a minimum of two layers of 6-millimeter plastic sheeting, except where the only ACM being abated in the project is vinyl asbestos floor tile. *Id.*

²⁶ It should be noted that the state Department of Labor, pursuant to revisions to its rules governing the abatement process, requires the use of fire-retardant materials in abatement. See e.g., 12 NYCRR § 56-7.5(b) (requiring enclosure systems constructed at the work site to use at least one layer of six millimeter fire-retardant plastic sheeting on the walls and ceiling, and to use at least two layers of six millimeter fire-retardant reinforced plastic sheeting for floor protection). Asbestos contractors, which are licensed by the State, must use the most stringent of either the City or State codes, and by incorporating the state fire-retardant standard in its abatement procedures, DEP will bring its rules further into conformance with the State’s new standards.

contractors in maintaining it as well as any other relevant safety standards, including maintaining proper egress.

- Rec. 5:** DEP should amend its rules and/or seek legislation to require that egress conditions be recorded daily in the abatement contractor's logbook and kept on site. Depending on the size, scope and/or complexity of the job, contractors should also be required to keep up-to-date floor plans on site for first responders that reflect changes in building conditions.
- Rec. 6:** DEP should amend its rules and/or seek legislation to specify that all materials used in the construction of temporary enclosures for abatement projects, including partitions, decontamination areas, and plastic enclosures, be non-combustible or flame-resistant in accordance with New York State rules and National Fire Prevention Association (NFPA) Standard 701.²⁷
- Rec. 7:** DEP should amend its rules and/or seek legislation to require the installation of a central negative air "cut-off switch" or similar mechanism at abatement jobs that meet thresholds to be established by DEP, DOB, and FDNY.²⁸

C. Abatement Inspections

The DEP Enforcement Unit has jurisdiction to conduct inspections at abatement sites from the start date indicated on the ACP 7 form through the completion of the job. The Enforcement Unit also conducts inspections in response to public complaints, which may or may not relate to ongoing abatement work. The Enforcement Unit conducts an average of 3,600 inspections per year, of which approximately 40% were conducted in response to public complaints.²⁹ If a project does not comply with DEP rules, the Enforcement Unit takes samples and pictures of the site for preservation of evidence, issues a violation(s) to the abatement contractor and/or building owner and will issue a Stop-Work Order if necessary.³⁰ DEP inspectors undergo rigorous training and are well-versed in DEP rules for the proper conduct of abatement operations. However, the Working Group found that DEP inspectors do not currently use a checklist or similar mechanism to ensure consistency from inspection to inspection.³¹ Inspections are properly focused on locating violations that could threaten the integrity of a containment area, but do not currently include a systematic assessment of egress conditions. Most DEP inspectors are trained industrial hygienists, and are not trained to assess whether egress is being maintained in accordance with the Fire and Building codes.

²⁷ NFPA Standard 701 establishes standards to assess the fire-retardant qualities of various materials under specified fire conditions. Materials used in abatements are commonly labeled as being compliant with NFPA 701.

²⁸ Note that contractors may be required to obtain a DOB permit to install this equipment.

²⁹ DEP currently has 10 inspectors, who are required to respond within three hours to all abatement-related complaints received through 311.

³⁰ See Attachment A at steps 3.40-3.45.

³¹ Both FDNY uniformed inspectors and DOB Building Enforcement Safety Team (BEST) inspectors now use checklists to conduct site inspections (new buildings for which a SSM is required and full demolition sites). FDNY's checklist for sites under construction and demolition was approved in April 2008. BEST inspectors have checklists for all inspections related to full demolitions, as of January 22, 2008.

The Working Group also reviewed the capacity of properly trained and equipped DEP, DOB, and FDNY personnel to enter containment areas in response to emergency situations or to conduct an inspection. The members of the FDNY Special Operations Command (SOC) are trained and equipped to enter containment or other hazardous areas that require personal protective equipment (“PPE”). Prior to the August 18 fire at 130 Liberty Street, DOB had limited capacity to enter a containment area. Since the fire, DOB has developed this capacity and now has approximately six inspectors trained and equipped to conduct inspections within containment areas at 130 Liberty Street. While these personnel may be available to respond to other locations throughout the City, DOB has not developed a formal plan to deploy these resources as needed.

Recommended Changes to the DEP Inspection Process

- Rec. 8:** DEP should develop a set of written protocols, such as a checklist or other guidance, to ensure that its inspections are comprehensive and consistently conducted at all abatement jobs.
- Rec. 9:** Enhance DEP Inspection Protocols:
- (1) DEP inspections should include a review of egress and other fire/life-safety requirements, as agreed upon by DEP, DOB and FDNY (see also Recommendation 24). DEP inspectors should be properly trained to conduct these inspections and should be provided with the resources necessary to implement this recommendation.
 - (2) DEP, DOB, and FDNY should determine if certain high-risk abatement sites should be jointly inspected, whether through a joint inspection team, or at regular intervals by DOB and/or FDNY personnel. FDNY and DOB personnel should be properly trained and equipped to conduct these inspections.
- Rec. 10:** DEP should be empowered to enable its inspectors to enforce provisions of the Fire and Building Codes at abatement sites, including issuing Notices of Violation and other sanctions.
- Rec. 11:** DOB should make permanent its capacity to have inspectors and other personnel respond to abatement sites—based on criteria to be established by DOB, DEP and FDNY—to augment DEP and FDNY inspections at a particular site. DOB inspectors and other responders must have proper training and personal protective equipment to do this job.

D. Simultaneous Abatement and Demolition

During most demolition jobs that require asbestos abatement, all ACM must be removed prior to the commencement of work, and the Working Group agreed that this sequence of operations is preferable from a safety perspective. However, DEP rules provide that abatement and demolition could proceed simultaneously provided that certain criteria are met. Under current rules, if demolition commences prior to the removal of all ACM, the abatement

contractor must conduct the abatement in accordance with § 1-126 of the DEP rules, which require (among other things) that at a minimum, a two-floor buffer be established between abatement and demolition work. Although the rule establishes a framework for simultaneous abatement and demolition, the Working Group determined that the available guidance to conduct and oversee these complex operations is not well-defined.

Rec. 12: DEP should amend its rules and/or seek legislation to strictly limit simultaneous abatement and demolition work, and to require a variance from DEP—including review by DOB and FDNY—to undertake it. DEP, DOB, and FDNY should be responsible for jointly monitoring simultaneous abatement and demolition operations until they are complete.³²

III. Demolition Operations

DOB has primary responsibility for regulating full and partial demolitions in New York City³³ and administers a regulatory framework established under the Charter and the new Construction Codes.³⁴ Pursuant to that authority, DOB issues demolition permits upon approval of applications and other required paperwork for full demolitions, and conducts inspections of demolition sites.

A demolition permit is required when a building is to be completely removed, including the foundation. Once the building is ready to be demolished, DOB's Building Enforcement Safety Team (BEST) conducts inspections of demolition sites. As detailed below, demolition work in New York City is strictly regulated. Demolition sites are subject to a minimum of three inspections to enforce site safety requirements, and a special permit is required to use mechanical equipment like a backhoe to conduct a demolition.³⁵ The Working Group conducted an end-to-end review of the demolition process, including extensive working sessions and site visits with DOB, FDNY and DEP staff and a review of the regulatory framework and DOB-generated

³² To implement this recommendation, DEP, DOB, and FDNY should establish criteria that must be met to conduct simultaneous abatement and demolition, which should be adopted in the rules or internal procedures of each agency. At a minimum, the procedures should (i) require a joint evaluation of the proposed operation by DEP, DOB and FDNY; and include (ii) inspection protocols for each agency; and (iii) a guidance document for industry stakeholders that explains how applications for simultaneous abatement and demolition will be evaluated.

³³ The 1968 Building Code defined demolition as the dismantling or razing of all or part of a building, including all operations incidental thereto, but did not distinguish between full and partial demolition. See Admin. Code § 27-232. Partial demolitions were generally filed as alterations, as demolition permits were required by DOB only when a building was to be completely removed, including the foundations. The new 2008 Construction Codes, effective July 1, 2008, however, separately define full and partial demolitions. Full demolitions are the "dismantling, razing, or removal of all of a building or structure, including all operations incidental thereto." Partial demolitions, by contrast, involve the dismantling of "structural members, floors, interior bearing walls, and/or exterior walls or portions thereof." See BC § 3302.1.

³⁴ Effective July 1, 2008, construction and demolition operations are governed by the New York City Construction Codes. Citations to provisions of the 1968 Building Code in effect at the time of the fire at 130 Liberty Street are therefore historical. The 1968 Code carries references to Titles 26 and 27 of the Administrative Code. The 2008 Codes carry references to Title 28 of the Administrative Code or to the Building Code (BC).

³⁵ See BC § 3306.4 (formerly Admin. Code § 27-1039). The new Building Code imposes more stringent requirements for non-handheld mechanical equipment, including the submission of detailed plans prepared by or under supervision of an engineer showing the extent, sequence, and means and methods of demolition for mechanical demolition filings. See BC § 3306.45.

material on the demolition process. The review paid special attention to how the demolition process intersects with the regulatory regime governing asbestos abatement, as well as relevant provisions of the New Building Code that went into effect on July 1, 2008.

The review also examined the efforts undertaken immediately following the August 18 fire at 130 Liberty Street to adjust DOB's internal operations and enhance its coordination and information-sharing with other agencies. For example, DOB began to revise its inspection checklist for BEST and accelerated development of a quality assurance process for inspections conducted by the team at a particular site. DOB is also developing a risk-based program and response protocol that takes into account the recurrence of violations at particular sites and other criteria. DOB also worked with FDNY to develop a procedure to process variance requests for the removal of damaged sprinkler systems in buildings undergoing demolition or gut rehabilitation,³⁶ and to revise DOB's Site Safety Manager exam.

Through its review, the Working Group noted a number of opportunities to enhance the demolition permitting and inspection processes, and to strengthen existing safeguards in the conduct of demolition operations, particularly with respect to fire suppression and site safety. These issues are reflected in the 15 recommendations below.

A. Current Demolition Process

Any building demolition, alteration or construction work in New York City requires a permit from DOB,³⁷ unless the proposed activity is exempt by Administrative Code section 28-105.4.³⁸ A flow chart of the demolition process as of December 2007 is included as Attachment B. Since 2002, DOB has issued approximately 5,000 demolition permits per year, ranging from 3,386 in 2002 to 6,480 in 2006. Queens and Brooklyn usually account for the largest number of demolition permits issued, with a yearly average of about 2,000 and 1,500, respectively, since 2002. The following table shows Citywide Initial Demolition Permits issued since 2002.³⁹

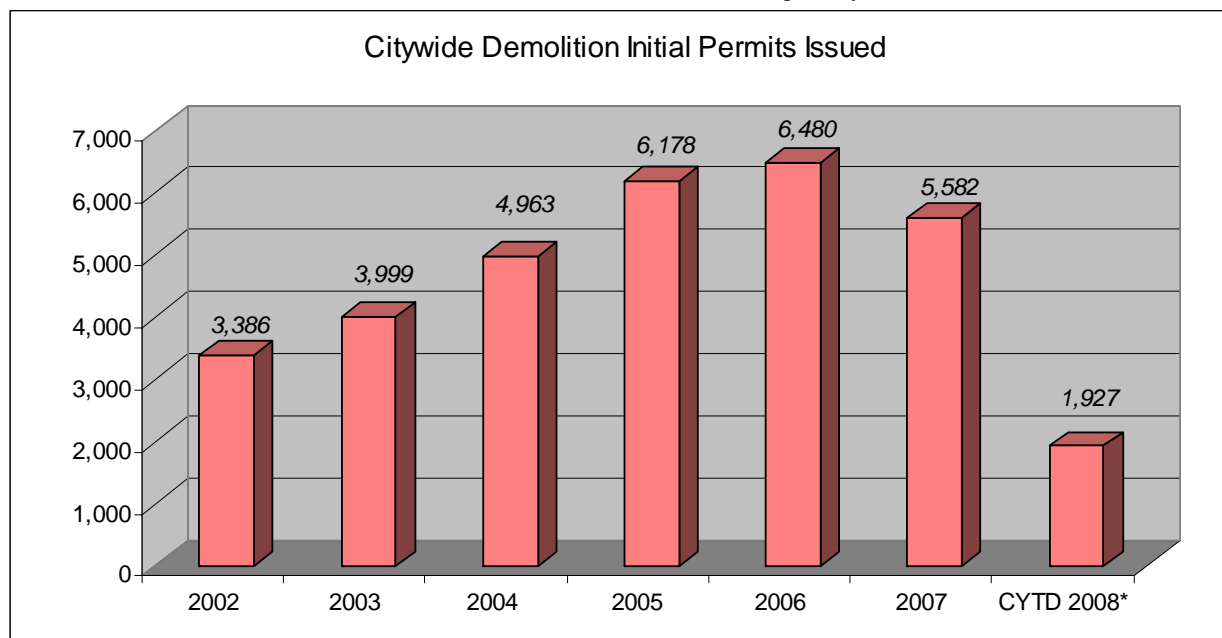
³⁶ See Technical Policy and Procedure Notice (TPPN) #3/07 issued October 23, 2007.

³⁷ See Admin. Code § 28-105.1, BC § 105.6 (formerly Admin. Code § 27-147, -167).

³⁸ Admin. Code. § 28-105.4 sets forth a variety of work types exempt from the DOB permit requirement, including minor alterations and ordinary repairs, emergency work, and ordinary plumbing work.

³⁹ The initial demolition ("DM") permit is the first DM permit issued for the DM job. DM permit renewals are not included in the demolition Process Flows.

Chart 1: Initial Demolition Permits Issued for Calendar Years 2002 through May 2008



Source: BIS via B-SMART

The process of obtaining a demolition permit begins with the filing by the applicant (a Professional Engineer, Registered Architect or demolition contractor) of a DOB Plan/Work Application (“PW-1” form) with the appropriate Borough Office.⁴⁰ The PW-1 requests in-depth information about the project, including location, job and work types, and building characteristics. At this stage, the applicant, on behalf of the owner, must inform DOB whether any asbestos abatement will take place in connection with the demolition. If not required to file for abatement, the applicant submits a DEP-issued ACP 5,⁴¹ or a DOB-issued Asbestos Exemption Certification Letter known as an ASB4 Form (“ASB4”).⁴² If abatement is required, the applicant submits an ACP 7 form (described in Section II.A above), which certifies that Asbestos Containing Material (“ACM”) is present, and describes what will be abated. Under DOB’s current standard operating procedures, ACM must be abated before demolition can commence, though in certain circumstances, abatement and demolition may occur simultaneously (see Section II.D).⁴³

Once the PW-1 is submitted, the applicant is issued a job number that is entered into DOB’s Building Information System (BIS).⁴⁴ Upon payment of the appropriate filing fee,⁴⁵ the

⁴⁰ The PW-1 is prepared and signed by a P.E., R.A., or demolition contractor, and signed by the Building Owner.

⁴¹ Once the application is submitted, the Borough Office forwards copies of any asbestos forms to DEP, which conducts random monthly audits of asbestos investigators from ACP5 forms.

⁴² The ACP5 form is signed by a DEP-licensed asbestos investigator who certifies that there is no ACM at the site. The ASB4—completed by a Registered Architect, Professional Engineer, licensed plumber or licensed oil burner installer—states that the type of work to be performed (e.g., erecting a flagpole, installing an outdoor pool, exterior scaffolding) would not impact asbestos containing material, *see* 15 RCNY § 1-23.

⁴³ *See* Operations Policy and Procedure Notice (OPPN) #9 of 1993. Note, however, that DEP rules allow for simultaneous abatement and demolition in certain circumstances, *see* section II.D.

⁴⁴ DOB initially enters information about the job into BIS upon receipt of the PW-1 and scans all submitted forms and other documents into BIS.

applicant submits an “Application for Inspection prior to Demolition” and “Pre-demolition Report” to BEST, which reviews the application and enters it into a demolition spreadsheet. If the demolition requires large-scale machinery, whether below or above street-level, the demolition contractor must submit special applications for approval to BEST, which reviews the proposed demolition plan and makes recommendations for carrying it out.⁴⁶ These requirements have been significantly enhanced in the new Building Code.⁴⁷ After submitting the initial paperwork to the Borough Office and to BEST, the demolition contractor must satisfy two additional pre-requisites to obtaining a permit: (i) provide notification to adjoining owners ten days prior to the commencement of demolition,⁴⁸ and (ii) schedule a BEST pre-demolition inspection. BEST conducts the pre-demolition inspection to ensure that the site to be demolished matches the information in the paperwork on file, to verify the location and size of the building, and to confirm that the structure is vacant.

Once the site passes the pre-demolition inspection, the demolition contractor submits a Work Permit Application (“PW-2”) to the DOB Borough Office to obtain a demolition permit.⁴⁹ In general, the Working Group found that the DOB process for demolition operations provides the agency with comprehensive information about the demolition, and that the mandatory inspections built into the process provide an opportunity to verify the location and pre-demolition set-up. However, the group noted two issues that should be addressed:

Issue 7: Verification that abatement is complete prior to the start of full demolition.

Under DOB standard operating procedures, before a demolition can commence,⁵⁰ an applicant for a demolition permit must submit an asbestos inspection report to DOB certifying that a site is either an asbestos project (ACP 7), not an asbestos project (ACP 5), or exempt (ASB 4). The Working Group found that, in practice, DOB has occasionally issued a full demolition permit on the basis of an ACP 7, rather than the required ACP 5 or ASB 4 that certifies abatement is not required at the site. In such cases, full demolition could commence at a site before all ACM is removed.

⁴⁵ DOB permit fees are established pursuant to the Administrative Code. The fees for demolition and removal permits are computed by multiplying the street frontage in feet by the number of stories of the building times two dollars and sixty cents, provided the minimum fee shall be not less than \$260. See Admin. Code § 28-112.2 (formerly Admin. Code § 26-212).

⁴⁶ The BEST 4 application for BEST recommendation for mechanical means demolition requires a description of the mechanical equipment proposed to be used for demolition, along with a plot plan providing information about the structures to be demolished. The contractor must also agree to erect a construction fence along the perimeter of the job site and to restrict access to the safety zone of demolition while the equipment is in use.

⁴⁷ Under the new Building Code, contractors must submit detailed information about mechanical means to be used in full and partial demolitions, including plans certified by a licensed professional, sections and details of the building that clearly show the extent, sequence, and means and methods of demolition. Contractors will also have to list and describe all proposed non-handheld demolition equipment to be used and describe compliance with various demolition requirements. See BC § 3306.5.

⁴⁸ Proof of such notification must be provided to DOB.

⁴⁹ Applicants must make additional submissions with the PW-2, including proof that utilities have been cut, proof of notification of adjoining neighbors and the community board, and the ACP 5 or other asbestos report submitted earlier in the process.

⁵⁰ See OPPN #9 of 1993.

Issue 8: **Increase permitting requirements for demolitions using mechanical devices.** To perform demolitions of buildings using mechanical equipment, the New Construction Codes already require that an engineer submit information describing the extent, means, and methods of demolition.⁵¹ However, this requirement does not apply to demolitions using only hand-held equipment like jackhammers and chainsaws. As a result, DOB does not have critical information about these mechanical demolition jobs.

Recommended Changes to the Demolition Process

Rec. 13: DOB should issue full demolition permits only if the applicant properly certifies that a site contains legally acceptable levels of asbestos, or that all asbestos has been removed, or the applicant receives a variance to conduct simultaneous abatement and full demolition.

Rec. 14: DOB should amend its rules and/or seek legislation to increase permitting requirements for all building demolitions using hand-held mechanical devices, including the submission by an engineer of means and methods used and detailed mechanical equipment calculations and details.

B. Current Demolition Operations

Once a demolition permit is issued, the demolition contractor is required to notify BEST 24 hours prior to the commencement of demolition.⁵² Within 48 hours, a BEST inspector conducts an inspection of the site and, under a recent initiative, DOB through its Buildings' Strategic Metrics and Reporting Technology (B-SMART) system automatically sends weekly reports to FDNY listing all new permits issued for demolition. DOB requires that a number of safety measures be in place during demolition. Under a requirement strengthened in the new Building Code, a Site Safety Manager (SSM) must be on site during the demolition of a major building.⁵³ In addition, in order to maintain fire safety standards at demolition sites, a number of fire protection systems must be in place, including maintaining a working standpipe and sprinkler system.⁵⁴ During its review, the Working Group noted a number of ways in which the

⁵¹ Under the new Building Code, contractors must submit detailed information about mechanical equipment to be used in full and partial demolitions, including plans certified by a licensed professional, sections, and details of the building that clearly show the extent, sequence, and means and methods of demolition. Contractors will also have to list and describe all proposed non-handheld demolition equipment to be used and describe compliance with various demolition requirements. See BC §§ 3306.4 and 3306.5.

⁵² The PW-2 forms for each site are now available online, but BEST still has applicants fax hard copies to indicate 24-hour notice. BEST records the notification in its Demolition Spreadsheet, and the demolition contractor contacts BEST to receive a 24-hour confirmation number. After receiving notification from the demolition contractor of commencement of demolition, BEST notifies the DOB main office of the commencement of demolition and the property address. See Attachment B at steps 1.20-1.25.

⁵³ See BC § 3310 (setting threshold for major building at 10 or more stories, 125 feet in height or more, maintaining 100,000 square feet or more of lot coverage regardless of height, or as designated by the commissioner) (formerly Admin. Code § 27-1009(d) & 1 RCNY Chapter 26).

⁵⁴ DOB, in coordination with FDNY, published in October 2007 a procedure for removing a damaged sprinkler system in connection with demolition or gut rehabilitation projects. See TPN #3/07. Under the procedure, applications for this variance from the Building Code requirement that sprinklers remain in working order during

SSM's responsibilities could be enhanced and fire-safety systems and requirements could be strengthened.⁵⁵

Issue 9: FDNY notification of construction and demolition operations. Under current law, construction and demolition activity requires a DOB permit, and FDNY is required under its rules to inspect construction and demolition sites every 15 days.⁵⁶ Until late last year, FDNY relied on local companies to identify these sites and did not receive formal notification from DOB that a construction or demolition permit had been issued at a particular site.

Issue 10: Enhance site safety monitoring at demolition sites. The law requires the presence of a certified Site Safety Manager (SSM) at demolition or construction sites meeting defined thresholds.⁵⁷ The new Building Code requires that a Site Safety Coordinator or a Site Safety Manager be present at buildings of 10 stories or more. However, an SSM may need assistance to complete his or her duties on large construction and demolition projects.

Issue 11: Standpipe tracing requirement. The Building Code and DOB rules require building owners conducting construction and demolition above certain thresholds to employ an SSM.⁵⁸ Under the rules, the SSM is required to conduct "periodic" checks that a building's standpipe is connected to a water source and Siamese connection.⁵⁹ However, the Code does not currently require the SSM to verify that a standpipe has not been breached by visually "tracing" the standpipe risers and connections.

Issue 12: Color coding requirements for standpipes and sprinklers. The Building Code and Reference Standards currently require a red cap on all standpipe Siamese connections,⁶⁰ and the Code also mandates color requirements for caps of sprinkler Siamese connections.⁶¹ Currently, there is no requirement that interior standpipe and sprinkler system lines be color-coded for ease of identification.

demolition operations must describe the extent of the damage and attest as to why the system cannot be restored. As part of the DOB approval process, FDNY reviews the application and recommends necessary safety measures in lieu of sprinklers (e.g., maintaining an entire working standpipe, maintaining appropriate egress, and requiring SSMs on site at all times) as a condition to granting the variance. See id. Prior to this notice, no formal process existed for removing a damaged sprinkler system during demolition operations; as a result, contractors were removing this important fire suppression system without notifying DOB or FDNY.

⁵⁵ DOB is collaborating with FDNY to revise the SSM exam to include fire-safety information. The new exam will be implemented effective September 1, 2008.

⁵⁶ In November 2007, an internal FDNY policy was put in place to inspect those demolition or construction projects less than 75 feet high every 30 days. See FDNY Memo "Buildings under Construction or Demolition" From Patrick McNally, Chief of Operations, November 5, 2007.

⁵⁷ See note 53 above.

⁵⁸ See BC § 3310.5; 1 RCNY § 26-01(a).

⁵⁹ See Site Safety Manual, codified as Appendix A to 1 RCNY Chapter 26. Note, however, that DOB will promulgate new site safety rules as part of its implementation of the new Building Code.

⁶⁰ See BC §§ 3303.8 and Q105.1 modifications to NFPA 14-02 (formerly Admin. Code § 27-930(a)(4) and RS 17-1(2)(b)).

⁶¹ See BC § Q105.1 modification to NFPA 14-02 (formerly Admin. Code § 27-959(b)). Specifically, the Building Code requires green caps for each automatic sprinkler Siamese connection, as well as aluminum paint on the

Issue 13: **Permit and license requirement to cut and cap standpipes or sprinklers during full demolition.** The Building Code currently allows contractors to cut and cap standpipes or sprinklers without requiring a permit, or a plumbing or fire-suppression license of the person performing the work. Contractors performing this work may lack the knowledge or expertise to perform this work safely, increasing the risk that a standpipe or sprinkler system could be damaged during demolition.

Issue 14: **Pressurized alarm requirement for dry standpipes.** A pressurized standpipe alarm can detect breaches in a standpipe system, but such systems are comparatively new and are not currently required to be installed at construction or full demolition sites.⁶²

Issue 15: **Enhance pressure testing of standpipes in new construction.** At present, pressure testing of the standpipe is required at the end of construction of a new building.⁶³ However, tests during the construction process would provide an additional way to detect and address breaches in the standpipe system earlier in the course of the project.

Issue 16: **Strengthening the smoking prohibition at construction, abatement and demolition sites.** FDNY rules promulgated under the former fire code prohibited smoking in certain areas within a construction and demolition work site, but did not establish a general prohibition during construction or demolition operations. While the new Fire Code bans smoking at all construction and demolition sites and requires prominent placement of no-smoking signs, the new Building Code does not directly include this prohibition.⁶⁴ Additionally, while DEP bans smoking at abatement work places, its rules do not include procedures to ensure that abatement contractors and their employees adhere to this prohibition (e.g., posting no-smoking signs).⁶⁵

Recommended Changes to the Demolition Process:

Rec. 15: DOB should formally notify FDNY whenever a construction or demolition permit is issued.⁶⁶ For demolitions, a second notification should be made when DOB is alerted that demolition will actually commence, consistent with the existing requirement that contractors notify DOB 24 hours before any demolition starts. Once notified of a

Siamese connection of a non-automatic sprinkler system. Additionally, the caps of each Siamese connection used for combination standpipe and sprinkler systems are required to be painted yellow.

⁶² FDNY Manhattan Borough Command has reacted favorably to pressurized standpipe alarms that are currently being piloted by private contractors.

⁶³ See BC Q105.1 modifications to NFPA 14-02 § 11.4.1 (formerly Admin. Code § 27-951(f) and (g)).

⁶⁴ See new Fire Code §§ 310.2, 310.3, 1404.1. Similarly, FDNY's draft inspection guide for buildings under construction and demolition states that open fires and smoking are strictly prohibited and calls for prominent posting of "no smoking" signs. Sections FC § 310.2 (parts of former Admin. Code §§ 27-4008, -4206(b)(6), -4273, -4274, -4276 and -4281); FC § 310.3; (parts of 27-4092(6), 27-4205(p) and 27-4217); FC § 1404.1 (no equivalent in former fire code).

⁶⁵ See 15 RCNY § 1-51(e)(1).

⁶⁶ Notification may also be warranted for alterations that meet certain thresholds, see Recommendation 27.

permitted construction or demolition, FDNY should commence any necessary inspections.

- Rec. 16:** DOB should amend its rules and/or seek legislation to require additional site safety personnel for projects meeting defined criteria established by DOB. While the new Building Code modifies these criteria to include buildings of 10 or more stories,⁶⁷ the requirement should be further expanded to require the presence of site safety coordinators to assist SSMs in certain circumstances.⁶⁸
- Rec. 17:** DOB should amend its rules and/or seek legislation to require that SSMs conduct daily checks of the standpipe connection and the valves at each floor below the construction floor, and to conduct a weekly “tracing” of the standpipe to ensure that it has not been breached.
- Rec. 18:** DOB should amend its rules and/or seek legislation to require uniform color-coding of standpipe and sprinkler system lines.
- Rec. 19:** DOB should amend its rules and/or seek legislation to require a plumbing or fire-suppression license and a permit to cut and cap standpipes or sprinklers during full demolition.
- Rec. 20:** FDNY and DOB should study the feasibility of requiring the installation of a pressurized standpipe alarm system (or other security measures) on new building and full demolition jobs, and make recommendations pertaining to the adoption of rules or proposal of legislation to implement such a requirement.⁶⁹
- Rec. 21:** DOB should amend its rules and/or seek legislation to require a licensed plumber or fire suppression contractor to pressure test standpipe systems every 75 feet for buildings under construction.
- Rec. 22:** The Citywide smoking ban at construction, demolition and abatement sites should be strengthened and enforced with a zero-tolerance approach. Specifically,

- (1) FDNY should strictly enforce the no smoking provision in the Fire Code.

⁶⁷ See BC § 3310.5.

⁶⁸ Site safety coordinators, a position codified in the new Building Code, have similar qualifications to SSMs but are not required to have as much experience. See Admin. Code §§ 28-402.2, 28-403.2. DOB expects to propose that for demolitions of buildings 25 stories or more a SSM and a Site Safety Coordinator be required until the building is lowered to 20 stories, when the Coordinator is no longer required. Additionally, DOB proposes to change its rules to 1) require that the Site Safety Log indicate the name and contact information of the Coordinator on a daily basis; 2) give the DOB Commissioner discretion to require additional Coordinators for very large buildings; and 3) require a Site Safety Coordinator during the entire demolition for buildings over 500,000 square feet regardless of height. DOB has similarly proposed enhancing site safety manager/coordinator requirements for new buildings.

⁶⁹ As part of this study, FDNY and DOB should consult with the affected industry stakeholders as appropriate. The Manhattan Borough Command has reacted favorably to this measure in buildings where it is being piloted.

- (2) DOB should amend its rules and/or seek legislation to ban smoking in all areas within a construction or demolition site and should consider whether additional penalties or mechanisms are needed to enforce the prohibition. In the interim, DOB should amend its current protocols to prohibit smoking in construction sites, in furtherance of existing requirements for contractors to institute and maintain safety measures during construction and demolition.
- (3) DEP should expand its smoking prohibition to ban smoking on any floor of a building where abatement activities are taking place,⁷⁰ prohibit lighters and matches in the work place, and take measures to strictly enforce the prohibition (e.g., requiring the prominent posting of no-smoking signs throughout an abatement site).

C. Demolition Inspections

Inspections by both DOB and FDNY are integral to the demolition process.⁷¹ BEST focuses primarily on Building Code enforcement, particularly structural safety. Prior to and during demolition, DOB conducts a minimum of three different types of inspections: (i) pre-demolition; (ii) within 48-hours after a notification that demolition will commence; and (iii) a post-demolition (sign-off) inspection. BEST inspectors may also conduct additional inspections at periodic intervals during demolition.⁷² In 2007, BEST performed 18,362 demolition inspections.

As conditions dictate, BEST may prioritize periodic inspections during demolition on the basis of certain criteria, including a contractor's violation history and the safety history of the project site. If safety or other violations are found during an inspection, a BEST Inspector can issue a Notice of Violation or an Environmental Control Board violation, either of which may include a Stop-Work Order ("SWO"). To issue a SWO, the inspector must verify the violation with a BEST Supervisor, Chief, or Assistant Chief.⁷³ In the typical case, once an SWO is issued, the demolition contractor corrects the violation and requests a re-inspection.⁷⁴ If the violations have been corrected and all conditions imposed in connection with the SWO have been met, the SWO is lifted and work can resume.

Once demolition is complete, the Contractor requests a BEST sign-off inspection.⁷⁵ BEST conducts the inspection and, if no violating conditions are found, signs and stamps the

⁷⁰ The ACP Rules currently prohibit smoking at abatement "work places," which include areas of the building or structure where asbestos abatement activities take place and any decontamination enclosure systems. See 15 RCNY §§ 1-02, 1-51(e). Amending the DEP smoking ban to cover any floor of the building where abatement activities are taking place would expand the prohibition to cover a broader area.

⁷¹ FDNY's inspection process is discussed in Section IV, below.

⁷² See Attachment B at steps 1.11, 1.24, 1.26, and 1.33.

⁷³ There are full and partial SWOs, which determine how much work must cease on the site. The inspector calls the BEST supervisor, Chief or Assistant Chief, who approves or disapproves a SWO over the phone. If approved, the BEST Inspector posts the SWO form at the project site and photographs the violations for transmittal to ECB while the BEST clerk inputs the order into BIS. See Attachment B at steps 1.27-1.30

⁷⁴ This may include correcting the violating condition, as well as paying the requisite ECB penalty...

⁷⁵ The sign-off inspection checks that demolition is complete, all equipment and materials are removed, and the site is backfilled unless construction for a new building will commence immediately.

PW-2 and inputs the sign-off into BIS. The Working Group found that DOB has a robust inspection regime in place for demolition operations, but that certain steps could be taken to strengthen the inspection process and the use of inspection results for DOB, FDNY and DEP.⁷⁶

Issue 17: **Prioritization of inspections.** FDNY uses certain risk factors, such as building size, type, use and occupancy as key criteria to determine the frequency of inspections. The DOB BEST Squad may prioritize inspections on the basis of risk factors such as a contractor’s violation history, and the history of the project site, though it does not have a fully-developed set of risk criteria to prioritize the demolition sites subject to periodic BEST inspections. DEP inspections are generally prioritized on the basis of public complaints (see Section II.C).

Issue 18: **Coordination of FDNY, DOB, and DEP inspection protocols and cross-training of inspectors in common safety priorities.** FDNY and DOB inspections include common elements, but do not formally incorporate each agency’s relevant safety elements into their respective protocols.⁷⁷ FDNY and DOB inspections do not currently incorporate abatement-related safety criteria, and DEP inspections do not incorporate FDNY and DOB safety elements (for example, ensuring egress and maintaining fire-suppression systems). In addition, FDNY, DEP and DOB inspectors are not cross-trained to address each agency’s safety priorities.⁷⁸

Issue 19: **Sharing inspection results.** DOB, DEP, and FDNY record inspection results in three different formats: DOB BEST inspectors record results for new buildings and full demolitions on paper inspection cards; FDNY records results in a sharable database for 15-day inspections and on paper inspection cards for 30-day and other field inspections; and inspections conducted by the Bureau of Fire Prevention are recorded on paper, then entered into a database.⁷⁹ DEP abatement inspectors record results in an internal database that is not currently shared. As a result, individual inspectors across agencies do not have the means to know when a location has been inspected by another agency, and the results of that inspection.⁸⁰

Issue 20: **Strengthening the Quality Assurance program for the DEP and DOB BEST inspection programs.** FDNY has a quality assurance (QA) program for its inspections,⁸¹ and DOB has a QA program for borough-based inspections. However, as of January 2008, DOB did not have a QA program in place for

⁷⁶ See Sections II.C and IV.

⁷⁷ The DEP inspection process is discussed in Section II.C above.

⁷⁸ In winter and spring 2008, FDNY conducted trainings for their uniformed inspectors on DOB- and DEP-related issues.

⁷⁹ The FDNY inspection process is discussed in Section IV below.

⁸⁰ FDNY does report certain conditions to DOB via A-8 referral forms, and these referrals may result in additional action by DOB, but there is no centralized database of inspection results. See also Recommendation 31.

⁸¹ FDNY Battalion Chiefs are required to audit inspections conducted by local Companies and take appropriate action to ensure that inspections are conducted properly.

BEST,⁸² and the QA program for DEP inspections has been discontinued since 1994.

Recommended Changes to the Demolition Inspection Process

Rec. 23: FDNY, DOB, and DEP should review the criteria they use to prioritize inspections (new buildings and demolitions for DOB) and affirm, or make appropriate adjustments to ensure that, to the extent possible, these inspections are prioritized on the basis of risk.⁸³

Rec. 24: Create Common Safety Protocols:

- (1) FDNY, DOB, and DEP should collectively review their inspection protocols for construction, demolition and abatement sites, and each agency should develop a list of high-priority safety issues within the inspection capacity of all three agencies, including egress, fire-suppression systems and the presence of proper safety personnel. FDNY, DOB, and DEP should incorporate relevant items into their inspection criteria, which should be reviewed annually.
- (2) FDNY, DOB, and DEP inspectors should receive training so they have the capacity to address basic safety issues at construction, demolition and abatement sites.⁸⁴

Rec. 25: Share Inspection Results:

- (1) In the short term, FDNY, DOB and DEP should implement a mechanism, such as a common database, to share relevant inspection results of buildings that meet agreed-upon criteria.
- (2) Over the long term, FDNY, DOB, DEP develop a comprehensive data-sharing mechanism that would capture relevant inspection results, and may include open stop work orders, violations, and other data.

Rec. 26: DOB should develop an audit-based QA mechanism for the BEST inspection program,⁸⁵ and DEP should reinvigorate its QA program for its inspections to ensure that protocols are being followed and to confirm the integrity of inspection results.

⁸² DOB began early this year to develop a BEST QA program.

⁸³ This recommendation is not intended to obviate use of other criteria to conduct inspections (e.g., public complaints, or periodic inspections of new buildings and demolitions under DOB standard operating procedures).

⁸⁴ FDNY has provided DEP and DOB with basic fire safety information. In addition, firefighters have received training on structural and environmental issues.

⁸⁵ Implemented January 1, 2008.

D. Alterations and Partial Demolitions

As part of its survey of full demolitions, the Working Group also examined safety concerns arising from significant alterations. While such work has not been permitted as a full demolition, certain types of alterations can encompass significant interior demolition work and raise safety issues similar to those encountered for full demolitions.

Pursuant to a long standing DOB administrative practice of DOB, plans and applications for alteration permits must be filed as alterations, which are classified into three categories: (i) an Alteration Type 1 application (ALT1) is a major alteration in which the use, occupancy, or exit requirements of an existing property changes;⁸⁶ (ii) an Alteration Type 2 (ALT2) is an alteration in which the use or occupancy of a facility does not change, but the permit filing includes multiple work types, such as plumbing and construction; and (iii) an Alteration Type 3 (ALT3) is a minor alteration that involves only one work type.⁸⁷

Partial demolition work could be permitted as an ALT1 or ALT2. Since 2002, DOB has issued a yearly average of approximately 6,000 ALT1 permits, and 58,000 ALT2s; any of these jobs may have included a partial demolition scope.⁸⁸ Significant alterations, including those amounting to partial demolitions, are subject to sign-off inspections,⁸⁹ as well as inspections for plumbing and other components of the job. However, BEST does not conduct inspections of significant alterations prior to or during the alteration work.⁹⁰

The new Building Code subjects a significant amount of this work to the same requirements as full demolition. The new Code separately defines partial demolitions as “the dismantling, razing, or removal of structural members, floors, interior bearing walls, and/or exterior walls or portions thereof.”⁹¹ Under this system, partial demolitions and full demolitions are generally subject to the same filing and notification requirements.⁹² Contractors undertaking partial demolitions have to provide DOB with detailed information about the job and about any non-hand-held mechanical means used in connection with a partial demolition. As with full demolitions, partial demolition permit holders will have to notify DOB and adjoining building

⁸⁶ Some examples of ALT1s include: changing the occupancy of a one-family house to a two-family house; or changing the use of a facility from commercial to residential; and changing the building’s exits.

⁸⁷ ALTs 1 and 2 can be professionally certified, which means that the Professional Engineer or Registered Architect certifies compliance with applicable laws and codes on applications he or she files. An ALT-1 results in a new Certificate of Occupancy (CO); an ALT-2 does not.

⁸⁸ The classifications under the new Building Code, along with the accompanying changes to DOB forms, will give DOB a better ability to track the volume of partial demolitions.

⁸⁹ DOB Borough offices conduct inspections prior to Certificate of Occupancy issuance. See Admin. Code § 28-116.2.4 (formerly Admin. Code § 27-210).

⁹⁰ It should be noted, however, that the Building Code requires alterations to the façade of a building 15 stories and above to have a SSM and a site safety plan filed. See BC § 3310.3.

⁹¹ See BC § 3302. Full demolition is defined as the “dismantling, razing, or removal of *all of a building or structure.*” Id. (emphasis added).

⁹² See BC § 3306.3 and 3306.5. See also DOB Analysis of New Building Code § 3306 (“Under the current code, partial demolitions can be treated as alterations and may not require compliance with demolition safety features. This has been corrected in the proposed code and partial demolitions will have to follow the demolition safety standards prescribed by the section.”)

owners prior to commencement of work.⁹³ Lastly, partial demolitions will require adherence to a set of safety precautions nearly identical to those required for full demolitions.⁹⁴

Implementation of this regime will go far in addressing the disparity between safeguards for demolitions and significant alterations that existed in the 1968 Building Code. The Working Group found, however, that DOB could go further to ensure that these heightened permitting requirements are backed up by a more robust inspection regime for this work.

Issue 21: **Additional regulation of high-risk alterations.** Significant alterations can impact egress and other fire-safety concerns to the same extent as new construction or full demolition operations, but significant alterations are not always subject to the same inspection protocols.⁹⁵

Rec. 27: DOB should identify ‘high-risk’ alteration sites and develop an appropriate inspection program.⁹⁶ FDNY should determine whether high-risk alterations should be inspected under a revised Rule 11-01, which currently requires inspections of buildings in the course of construction and demolition at least every 15 days. (see also Recommendation 28).

IV. The FDNY Demolition Inspection Process

The Fire Department plays a vital role inspecting construction and demolition sites; inspections are conducted by both uniformed inspectors in the Bureau of Operations (“uniformed inspections”) and civilian inspectors in the Bureau of Fire Prevention (“civilian inspections”).

The FDNY Bureau of Operations has 198 Engine Companies and 143 Ladder Companies. Uniformed firefighters in every Engine and Ladder Company are responsible for inspecting all commercial, public, industrial, and multiple-dwelling buildings within their respective administrative districts on a cyclical basis (1-5 years), depending on risk assessments conducted by the battalion chief with administrative jurisdiction. In Fiscal Year 2008, uniformed inspectors conducted 65,307 building inspections, including 8,924 15-Day inspections of buildings undergoing construction or demolition. These uniformed inspections are part of the Building Inspection Safety Program (“BISP”), formerly known as Apparatus Field Inspection Duty (“AFID”). In addition to enforcing Fire Code compliance, uniformed inspections serve to

⁹³ See BC § 3306.3.2 for exception to the notification requirements for partial demolitions limited to the interior of the building.

⁹⁴ See BC § 3306.6 requires both full and partial demolition operations using mechanical equipment from within to be visited by a special inspector a minimum of three times: before demolition operations start, during demolition, and at the conclusion of demolition. BC § 3306.9 outlines the requirements for demolition, including but not limited, to dust abatement, sprinkler and standpipe maintenance, structural safety, and rodent control. The special inspections requirements for demolition are found in BC § 1704.19 and 1 RCNY § 101-6.

⁹⁵ It should be noted that DOB issued ALT-2 permits for the decontamination and deconstruction at 130 Liberty Street where the work proceeded only two floors at a time, with a consistent DOB presence at the site. Issuance of the alteration permit did not diminish DOB oversight of the project.

⁹⁶ Note that Section 330.12 of the new Building Code separately defines full demolition and partial demolition, and subjects partial demolitions to the same safety standards required for full demolitions. Any change in this area should be integrated with the new Building Code implementation to improve regulation of partial demolitions and major alterations.

(i) familiarize firefighters with conditions they could encounter during an emergency; (ii) check for violations of lawful occupancy, egress, and sprinkler and standpipe requirements; and (iii) advise property owners and tenants when they must remedy potentially dangerous conditions. Local Companies follow a detailed inspection protocol and serve Notices of Violation, Violation Orders and Summonses for non-compliant conditions.

When Companies encounter conditions that present serious or unusual operational problems because of construction, use, occupancy, size, and/or materials within the structure, they are reported to the supervising Battalion Chiefs, who determine whether a Pre-Incident Guide summarizing the potentially hazardous conditions should be completed. If a Pre-Incident Guide is needed, the Division Commanders review and confer with the Battalion Chiefs to formulate the required pre-planning. Prior to the 130 Liberty Street fire, Companies and Chiefs undertook a similar process to create “pre-fire plans.” These plans did not use a standardized format or capture the same baseline information for each location. Last fall, the Department instituted standardized Pre-Incident Guides that use a common two-page format to note and describe all conditions of concern. The guides are available on the FDNY intranet and are laminated and placed in Battalion Chiefs' vehicles for reference on the way to, or at the scene of an emergency.

The FDNY Bureau of Fire Prevention (“BFP”) has approximately 350 civilian inspectors who conducted approximately 180,508 inspections in Fiscal Year 2007,⁹⁷ most of which were conducted by personnel in BFP’s ten District Offices.⁹⁸ Civilian inspectors are responsible for inspecting premises throughout the City to ensure (i) the safe storage and use of hazardous materials; (ii) the safe operation of certain equipment; and (iii) the safe maintenance of certain occupancies. In addition, civilian inspectors detect violations of law, rules and regulations to reduce or eliminate fire hazards, such as inspections of construction sites for compliance with hazardous materials permitting and licensing requirements. Unlike uniformed inspectors, civilian inspectors do not have inspection responsibilities at every site undergoing construction or demolition in New York City. However, uniformed inspections can result in the referral of a specific unsafe condition to civilian inspectors, particularly related to BFP-issued permits at these locations (e.g., for storage of volatile flammable oils or storage and use of liquid oxygen cylinders).

Immediately after the fire at 130 Liberty Street, FDNY conducted an internal review of its uniformed inspection program and made a number of significant changes,⁹⁹ including (i) implementation of a third inspection period each week for every field unit of uniformed inspectors;¹⁰⁰ (ii) creation of a new software program to allow local Companies to track when

⁹⁷ Unlike uniformed inspections data, there is a lag in the collection of civilian inspections data. Only FY07 data is available at this time.

⁹⁸ BFP also has distinct units responsible for different kinds of inspections. These units include an Explosives Unit that issues permits and otherwise regulates the storage and use of explosives in connection with excavation and demolition work, and a Fire Suppression Unit that witnesses tests of sprinkler and standpipe systems, including those on construction sites.

⁹⁹ FDNY Press Release. “Fire Commissioner Scoppetta announces changes to Citywide Building Inspection Program” November 7, 2007, available online at http://www.nyc.gov/html/fdny/html/pr/2007/110707_8507.shtml

¹⁰⁰ This will increase the amount of time that units will be scheduled for weekly field inspections from six to nine hours.

their next 15-day inspection is due; (iii) addition of oversight of uniformed inspections at the Borough Command level with compliance measures implemented at FDNY headquarters;¹⁰¹ (iv) addition of material on fire prevention and inspections to the Fire Academy curriculum;¹⁰² and (v) implementation of a standard operating procedure to facilitate FDNY inspections of demolition and construction sites, jointly developed by DOB and FDNY.¹⁰³ FDNY also collaborated with DOB to develop a new procedure by which DOB notifies FDNY of new building or demolition permits issued. The permit information is given to local Companies, which were previously instructed to find construction and demolition sites by canvassing their areas administrative districts.¹⁰⁴

The Working Group reviewed FDNY's uniformed inspection process for construction, demolition and abatement sites, including the changes that were made through FDNY's review immediately after the fire at 130 Liberty Street, and noted a number of opportunities to strengthen the FDNY uniformed building inspection process.

A. Inspection Protocols

Under current rules, FDNY is responsible for inspecting all sites under construction or demolition every 15 days.¹⁰⁵ These uniformed inspections are carried out by firefighters in the local Company responsible for the administrative district in which the site is located. Until relatively recently, local fire Companies would canvass their administrative districts to locate sites where buildings were being demolished or constructed; FDNY did not receive notification from DOB that a construction or demolition was under way. Last fall, FDNY determined that some local Companies were not conducting inspections of construction and demolition sites every 15 days, and the Department established a new guideline to further clarify implementation of the 15-day inspection rule.¹⁰⁶ Buildings under 75 feet in height are now inspected every 30 days, and buildings that are 75 feet or higher continue to be inspected every 15 days and tracked in the BISP database. Buildings listed as Alterations Type I or Type II are subject to an initial inspection and, based on the Company Officer's judgment and experience, a Critical Information Dispatch System ("CIDS") card may be prepared and familiarization drills may be conducted at the site.¹⁰⁷ In addition, prior to fall 2007, FDNY Borough Commanders did not have formal oversight responsibility for inspections conducted within their borough. To strengthen accountability, last fall, Borough Commanders were given oversight responsibility to ensure that all necessary inspections are carried out within the required timeframes.

¹⁰¹ The program's name was changed from AFID to BISP at this time.

¹⁰² Additionally, newly promoted officers at every level will receive additional training on building inspections in their promotional courses, and a new course is being developed for fire prevention coordinators.

¹⁰³ FDNY has circulated a draft inspectional guide for buildings under construction and demolition.

¹⁰⁴ This is reflected in Local Law 24 of 2007, which provides for DOB, in consultation with FDNY, to establish a procedure for prompt notification of FDNY of issuance of any permit that will result in the issuance of a new or amended certificate of occupancy or other change in the use and occupancy of the premises. This includes new building and ALT1 permits. See Admin. Code § 28-105.1.1 (formerly Admin. Code § 27-147(b)).

¹⁰⁵ See 3 RCNY § 11-01(a).

¹⁰⁶ See Chief of Operations Patrick McNally, November 5, 2007 Memo "Buildings under Construction or Demolition" ("McNally Memo").

¹⁰⁷ CIDS cards provide firefighters with information about the structure of and any known hazards inside the building that the FDNY has identified during routine inspections and emergency responses.

In fall 2007, FDNY established a process with DOB by which DOB transmits construction or demolition permit information from its Buildings Information System (BIS) directly to FDNY Headquarters. A flow-chart of the FDNY Demolition Inspection Process as of December 2007, as conducted by uniformed inspectors, is included as Attachment C. The FDNY inspection process generally begins when the FDNY Bureau of Operations receives a weekly email notification from DOB of initial demolition permits issued,¹⁰⁸ and sites are sorted and assigned to the appropriate district. The Bureau of Operations sends a list of demolition sites to the appropriate Battalions through inter-office mail, and the Battalion assigns each site to the local Company, which sends uniformed inspectors to conduct a preliminary inspection.¹⁰⁹

After the initial inspection, sites are revisited by uniformed inspectors every 15 or 30 days, depending on the height of the building. For buildings less than 75 feet in height, FDNY Operations sends a paper report of buildings requiring inspections, and uniformed inspectors conduct inspections every 30 days. Information about buildings over 75 feet in height is entered into the BISP 15-Day Tracking System, which is accessible by the Company Commander, and uniformed inspectors conduct an inspection of each site every 15 days. This database is also accessible by FDNY headquarters, allowing senior Chiefs to run compliance reports and monitor overdue inspections.

Overall, the Working Group found that sorting building data and transmitting the information to local Companies is a largely paper-based process that relies on inter-office mail to send information through the chain of command.¹¹⁰

Issue 22: The FDNY 15-day inspection rule. On its face, Rule 11-01 requires that buildings under construction or demolition be inspected at least every 15 days (and more often if necessary). In November 2007, FDNY prioritized construction and demolition inspections as follows: buildings 75 feet or higher are inspected every 15 days; buildings less than 75 feet are inspected every 30 days; and buildings permitted as Alteration types 1 or 2 are initially inspected and, based on the Company Officer's judgment and experience, a Critical Information Dispatch System (CIDS) card may be prepared, and familiarization drills may be conducted at the site.

Issue 23: Increase oversight of inspections. Additional oversight is required to confirm that inspections are occurring on a regular basis. The BISP Tracking System provides regular monitoring and weekly reports for inspections that are required 15 days, but it does not include inspections that are required every 30 days or at other frequencies.

Issue 24: Upgrade of FDNY databases and internal communications and administrative systems. FDNY currently uses multiple databases and paper-based systems that do not facilitate efficient data sharing within and outside the agency,¹¹¹ including making

¹⁰⁸ This was changed from a bi-weekly email to a weekly email in May 2008.

¹⁰⁹ As part of this inspection, the Company notes the height of the building, which determines how frequently the site should be inspected thereafter. See Attachment C at steps 2.00 to 2.05.

¹¹⁰ In order to better track inspections, FDNY is incorporating sites that are inspected every 30 days into the BISP Tracking System, which will send pop-up alerts to the computer of each Company when inspections are due.

¹¹¹ These include the Fire Prevention Information Management System (FPIMS) in the Bureau of Fire Prevention, and the Building Inspection Safety Program (formerly AFID) and Critical Information Dispatch System (CIDS) in

15- and 30-day inspections data easily accessible. Moreover, some data-collection efforts are duplicative and could be streamlined and automated to increase information sharing and efficiency within and outside the FDNY.

Recommended Changes to FDNY Demolition Inspections Process

- Rec. 28:** FDNY should amend Rule 11-01 and other inspection requirements and establish, among other things, the appropriate frequency of construction and demolition inspections to maintain public safety. FDNY should revise its rules to reflect its inspection practices and should track and regularly report the results of required inspections under the revised rules.
- Rec. 29:** FDNY should strengthen its oversight of inspections of buildings under construction and demolition by incorporating BISP inspections of buildings under construction or demolition that take place every 30 days or at any higher frequency into the BISP Tracking System. FDNY should incorporate all BISP inspections of buildings under construction or demolition into the new FDNY Business Intelligence System, when it is operational.
- Rec. 30:** Automating and sharing inspections data:
- (1) FDNY should develop an automated, computer-based system that facilitates the sharing of inspection data throughout the agency, as well as with DOB and DEP.¹¹² This data-sharing initiative should include information about 15- and 30-day inspections (see also Recommendation 25).¹¹³
 - (2) The Department should also accelerate its transition from paper-based to computer-based data collection and storage for inspections and other processes.¹¹⁴

the Bureau of Operations. These databases were created independently, at different times, to collect information for different purposes.

¹¹² In addition, DOB and FDNY are undertaking a multi-phased project to create and implement processes for sharing electronic data, including floor plans, fire protection plans, and fire alarm/fire suppression system filings.

¹¹³ FDNY will incorporate the 30-Day Inspection program into the BISP 15-Day Tracking System, and both 15- and 30-Day Inspections scheduling and tracking will be incorporated into the new FDNY Business Intelligence System, when it is operational.

¹¹⁴ FDNY is redesigning its inspection systems, to create a single, comprehensive database containing all FDNY-related information about each individual building in the City of New York. This new Business Intelligence System will eventually incorporate historical data, and replace some current data storage and tracking systems in FDNY, which were created at different times to collect information for different purposes. In order to accomplish this, FDNY has launched a four-year technology plan, which includes: (i) building a data warehouse of citywide building and site information; (ii) piloting handheld tablets for inspectors in January 2009; and (iii) creating a risk-based inspections system that will target high-risk buildings for frequent inspections, instead of determining frequency of inspections by building use. In order to undertake this redesign, FDNY hired IBM to conduct a review of their current systems and propose a roadmap to creating a Business Intelligence System. IBM presented FDNY with a four-year roadmap in spring 2008, and Mayor Bloomberg provided \$5,500,000 for the first phase of the project in the FY09 Executive Budget.

B. Inspection Operations

The inspection frequency for each construction and demolition site is categorically determined by the height of the building; however, other factors can trigger heightened scrutiny of a particular site. If the building is higher than 15 stories or 200 feet, FDNY requires a standpipe supervisor with an approved FDNY certificate of fitness on site.¹¹⁵ If higher than 250 feet, uniformed inspectors ensure that the SSM or an alternate is on site. If “hot work” is taking place (e.g., work requiring torches), uniformed inspectors verify the presence of a fire guard or fire watch in accordance with the Fire Prevention Manual.¹¹⁶

Prior to fall 2007, all uniformed inspectors were expected to conduct inspections of buildings under construction or demolition under the general guidelines set out in the Fire Rules;¹¹⁷ however, FDNY did not have a specific inspection guide for those buildings.¹¹⁸ In fall 2007, the FDNY created a draft Inspectional Guide for Buildings under Construction or Demolition (Inspectional Guide 7), including an accompanying checklist of items for inspection.¹¹⁹ Members of the Working Group from DOB collaborated extensively with FDNY to ensure that the Inspectional Guide includes accurate fire-related Building Code requirements (e.g., sprinkler and standpipe requirements), as well as DOB SSM requirements.¹²⁰

If uniformed inspectors find a condition during an inspection, FDNY’s procedures vary depending on the seriousness of the condition and whether it falls under FDNY or DOB jurisdiction. For those conditions under FDNY jurisdiction that pose an immediate threat to life safety, the local Company issues a violation order and summons.¹²¹ It then notifies the Battalion Chief if the condition requires a SWO from DOB.¹²² Prior to fall 2007, some non-emergency conditions under FDNY jurisdiction were referred through 311 to DOB by the A-8 referral process. In connection with the Working Group’s findings, FDNY has created a new A-8 form to refer conditions to DOB¹²³ that does not include items under FDNY jurisdiction. Currently the

¹¹⁵ These inspections are conducted in accordance with Fire Prevention Manual (F.P.M.) Chapter 3, Addendum 1, Inspection Guide 7, Buildings under Construction and Demolition.

¹¹⁶ See F.P.M., Addendum 1, Inspectional Guide 7 (draft). Along with the requirements associated with hot work, a construction site is also subject to fire watch and fireguard requirements if it exceeds certain size thresholds. See 3 RCNY § 11-01(c)(14) (fire watch requirement); § 11-01(c)(15) (fire guard requirement).

¹¹⁷ See 3 RCNY § 11-01.

¹¹⁸ The FDNY has a series of inspection manuals that serve as guidance documents for field personnel conducting inspections of other regularly monitored building types, such as schools, hospitals, and multi-dwelling homes.

¹¹⁹ To heighten awareness of its inspection regime, FDNY in November 2007 re-constituted an advisory board comprised of industry stakeholders familiar with FDNY inspections. Feedback from this advisory board has been incorporated into inspection guides.

¹²⁰ The accompanying checklist includes the following categories: Owner/Construction/Demolition Company; Building Information; Permits and Certificates; Stairways; Elevator status; Cellars/Basements/Sub-levels; Fire Protection; Fire Prevention; Fire Operations.

¹²¹ The Fire Prevention Enforcement Unit tracks the violation.

¹²² FDNY cannot issue SWOs, instead DOB visits the site and issues a stop work order if necessary.

¹²³ FDNY removed referral items for which it can issue FDNY Violation Orders and Notices of Violation from the A-8 form. Additionally, the revised A-8 indicates items that are priority referrals, as opposed to regular referrals, by clearly stating “priority” next to priority items. This will reduce the number of referrals to DOB, as well as ensure that DOB is aware of the priority level of each referral.

local Company will issue some form of violation and require correction for non-emergency conditions under FDNY jurisdiction.¹²⁴

For emergency conditions under DOB jurisdiction, the local FDNY Company radios fire dispatch and the Battalion Chief, often leading to a call to the DOB Emergency Operations Center (EOC),¹²⁵ which immediately identifies and dispatches the appropriate DOB personnel to the site to conduct an inspection. For non-emergency conditions under DOB jurisdiction, the uniformed inspector completes an A-8 form,¹²⁶ the status of the violation is confirmed by the Battalion Chief, and the form is sent to FDNY headquarters. Until very recently, the FPCU would then call 311 to report the referral, and 311 would generate a complaint in DOB's BIS.¹²⁷

In connection with the Working Group's findings, FDNY now enters all A-8 referrals directly into BIS. FDNY and DOB are implementing a process to refer potential violations on the local level. Under the new A-8 referral process, referrals are entered directly into DOB's BIS at the FDNY Division office and photographs of potential violations are emailed to the relevant DOB office. If necessary, DOB and FDNY will do a joint inspection of sites with potential violations.¹²⁸ For those Divisions in which this process is not yet in place, A-8 referrals are sent to FDNY headquarters, where they are entered into BIS.¹²⁹ Inputting the priority report directly into BIS ensures that the information is transmitted quickly and reliably, rather than sending the referral through multiple FDNY offices and calling 311 before it is sent to DOB.

With the Working Group, FDNY and DEP have created a system to ensure that FDNY is notified of these abatement jobs.¹³⁰ In February 2008, DEP started faxing to the Bureau of Fire Prevention ACP7 forms for abatement projects that require the removal of more than 7,500 square or linear feet of ACM, or that cover on an entire floor.¹³¹ In April 2008, as recommended by the Working Group, DEP started emailing ACP7 forms to FDNY, instead of faxing the information. FDNY notifies DEP of receipt of the ACP7s via email. When FDNY receives the ACP7 forms, they are distributed to the relevant local Companies, which send uniformed

¹²⁴ For serious conditions, the local Company will issue a violation order. The Demolition Contractor generally has 1-16 days to correct the condition, or risk a summons. For less potentially serious violations, the local Company issues a Notice of Violation. The Demolition Contractor can then correct the condition and self-certify to the Environmental Control Board that the correction was made, subject to local Company spot-checks. Throughout this process, the local Company maintains inspection information and re-inspects as required. See Attachment C at steps 2.40-2.53.

¹²⁵ Or, if after work hours, DOB Emergency Response Team.

¹²⁶ A-8 referral items include: no CO, illegal occupancy, defective chimney, unenclosed stairway, and no floor load sign. For the full list of A8 referral items see A-8 referral form in FDNY's Fire Prevention Manual, Chapter 4, Enforcement Procedures.

¹²⁷ See Attachment C at steps 2.19-2.37.

¹²⁸ The A-8 Referral Pilot program was implemented in the Bronx in October 2006, Queens in November 2007, and Brooklyn in May 2008. To date, more than 543 joint inspections have taken place in the Bronx.

¹²⁹ See Attachment C.1 at steps 2.19-2A09.

¹³⁰ Beginning in June 2008, DEP emails notice of large abatement jobs to the FDNY Bureaus of Operations and Fire Prevention. These projects are sent to the battalions in a similar manner as demolition jobs. The Battalion does an initial inspection and determines if it requires repeat inspections, and, if so, the inspection frequency. If applicable, these sites are included in the BISP 15- or 30-Day Tracking System.

¹³¹ In order to collect information on large-scale jobs, DEP modified its "Asbestos Project Notification" or ACP7 form to gather key information, such as the amount of ACM being abated. See DEP Memo "Asbestos Inspection Report – Form ACP7" from R. Radhakrishnan, Director, Asbestos Control Program, January 17, 2008.

inspectors to inspect and assess the sites. FDNY enters the sites that require further monitoring into the BISP 15-Day Tracking System or 30-Day Inspection reporting program.

The working group noted two sets of issues that would improve FDNY demolition inspection operations.

Issue 25: Streamlining the process for FDNY to refer non-emergency conditions to DOB.

Uniformed inspectors conducting Company inspections often discover non-emergency conditions that are currently referred to DOB. These “A-8” referrals are currently (i) recorded on a form completed by the inspecting fire Company; (ii) sent to the appropriate FDNY division office; (iii) forwarded by interoffice mail to FDNY headquarters; (iv) called in to 311; and (v) entered by a 311 operator into the Building Information System (BIS) as a DOB complaint. In addition, the A-8 form used by FDNY to make non-emergency referrals includes certain conditions for which FDNY personnel have the authority to issue violations that would require that the condition be immediately addressed. Finally, the current A-8 form does not clearly label items for priority referral, and the form is not currently used to record and refer abatement-related safety issues to DEP.¹³²

Issue 26: Coordinating the FDNY inspection regime with DOB and DEP. Prior to fall 2007, FDNY did not receive notice of construction, demolition or abatement jobs from DOB or DEP. In addition, as discussed in Section III, FDNY uniformed inspections do not formally incorporate relevant safety elements from DOB and DEP into their inspection protocols, and FDNY uniformed inspectors are not cross-trained to address DOB and DEP safety priorities.¹³³

These issues have been addressed in Recommendations 1 and 15 (notification) and Recommendation 24 (common safety protocols and cross-training).

Recommended Change to the FDNY Demolition Inspection Process

Rec. 31: Enhance and expand the A-8 referral process:

- (1) FDNY should send all A-8 referrals from local units directly to DOB through BIS. Until that capability is fully developed, FDNY should directly enter referrals into BIS from FDNY headquarters.¹³⁴

¹³² During the review, the Working Group noted that many forms and documents used internally and by applicants lack certain "form protocols" such as which agency/entity "owns" the form, what precisely the form is used for, a form number, and an issue date. As part of the implementation of these recommendations, DOB, FDNY and DEP should update any relevant forms to include this and other important information and should ensure that, to the extent possible, forms use a consistent format.

¹³³ In winter and spring 2008, FDNY conducted trainings for their uniformed inspectors on DOB- and DEP-related issues.

¹³⁴ Direct entry of referrals from FDNY headquarters was implemented on March 14, 2008. DOB will conduct regular quality assessments to ensure that there are no problems with data entry.

- (2) FDNY should issue violations or notices of violation for fire-related items that fall within its jurisdiction rather than referring these items to DOB.¹³⁵
- (3) FDNY, DOB and DEP should determine whether and to what extent abatement-related safety issues outside the containment area should be included on the A-8 form, and whether abatement-related safety issues should be referred to DEP.¹³⁶

C. Public Information

As part of its review, the Working Group assessed the publicly available information about the demolition and abatement processes, including agency websites and published guidance about conducting these operations. The Working Group found that while there is an abundance of publicly available information on certain subjects, including available abatement contractors and provisions of the New Building Code, the information available is not comprehensive or consistent. For example, agency websites and publications do not include complete descriptions of the demolition and abatement processes or particular aspects of these activities, such as filing requirements, inspections, and including key safety issues. In addition, the various city, state, and federal laws and rules that govern these operations are not always readily available.

Rec. 32: DOB, DEP and FDNY should update their websites and publications to provide comprehensive and coordinated guidance about the demolition and abatement processes, including how to file for and conduct safe abatement and demolition jobs, and the regulatory schemes that are triggered by these operations. In addition, DEP, DOB, and FDNY input should develop additional guidance for building owners and contractors about conducting these complex operations safely.¹³⁷

V. Non-Jurisdictional Buildings

The Working Group also examined safety issues pertaining to “non-jurisdictional” buildings in New York City: those properties that are owned by a state, federal or international entity and thus are generally not subject to the building and fire codes. The Working Group

¹³⁵ The authority for the Fire Commissioner to cross enforce certain provisions of the Building Code, e.g., maintenance of fire-rated materials, has been expanded in comparison to the authority granted by the 1968 Building code, see Admin. Code § 28-103.1.

¹³⁶ As of July 2008, FDNY and DEP are in discussions to create a system by which FDNY will notify DEP of any unreported large-scale abatements.

¹³⁷ Specifically, in addition to the substantial guidance already available, DEP should work with DOB and FDNY to develop and issue guidance to abatement contractors that explains how to ensure that proper egress is maintained during an abatement job (see, for example, Asbestos Forms page on the DEP website, at http://www.nyc.gov/html/dep/html/forms_and_permits/asbestosf.shtml (providing general guidance on the asbestos abatement process, links to DEP forms, and instruction sheets for each form); Memorandum from R. Radhakrishnan, P.E., Director, Asbestos Control Program to All Interested Parties (January 17, 2008) (informing abatement contractors of revised ACP7 form and reiterating existing egress requirements under DEP rules); About Construction Permits brochure, at <http://www.nyc.gov/html/dob/downloads/pdf/consbroch.pdf> (providing basic guidelines, contact information and a checklist for construction permits); and demolition page on DOB website at http://www.nyc.gov/html/dob/html/guides/demolition_safety.shtml (providing guidance on the demolition process and links to DOB notices on demolition requirements)).

sought to identify the number of non-jurisdictional properties in the City, to assess the extent to which those properties are subject to the Building and Fire Codes, and to review agency practices in the field with respect to inspections, permitting for construction, abatement and demolition, and other safety-related issues.

Working with the Department of Finance and the Department of Citywide Administrative Services, the Working Group identified approximately 885 non-jurisdictional properties in the City that fall into the following ownership categories:

Table 1: Non-Jurisdictional Properties by Owner¹³⁸

Owner	Properties
United States Government	163
Foreign Governments & International Entities	278
New York State Government	136
New York State Authorities & Other State-Related Entities	308
Total	885

Source: City of New York Data¹³⁹

There are two primary safety issues with respect to non-jurisdictional buildings: lack of enforcement power to ensure compliance with the City’s Building and Fire Codes, and lack of agency awareness about activity or changing conditions at these properties that could affect public and first-responder safety.

A. Enforcement Authority

The inspection and enforcement authority of the Fire Department and the Department of Buildings derives from State law, the City Charter, and the Administrative Code. Privately-owned and City-owned properties are subject to the Building and Fire Codes, and building owners are required to comply with all permitting and inspection requirements for construction, demolition, and any other activity regulated by these codes.¹⁴⁰ With respect to non-jurisdictional properties, however, the extent to which building owners are required to comply with the Building and Fire Codes depends on federal, state, and in some cases, international law.

With respect to federally-owned properties, federal law provides that local fire authorities are entitled to visit federal buildings for the purpose of preparing and reviewing a biennial pre-

¹³⁸ All numbers approximate.

¹³⁹ To identify the non-jurisdictional Properties by category of ownership, the Working Group analyzed data from the Department of Finance Fairtax system (the centralized database DOF uses for property tax and other tax billing) to identify the non-jurisdictional properties in the City, distilling 21,000 listings from a list of one million to exclude all privately owned and City-owned properties. In the end, the Panel identified 885 properties owned by various non-jurisdictional entities. It should be noted, however, that while this methodology provided a representative listing of non-jurisdictional properties in the City, it may not be a complete count because the system was not designed to undertake this type of screening.

¹⁴⁰ The permitting and inspection requirements for demolition and abatement are discussed at length in Sections II through IV above.

fire plan.¹⁴¹ However, the federal government is not bound to comply with local codes, or with the recommendations of local fire- and building-safety officials. Beyond voluntary compliance at the discretion of the federal owner, local jurisdictions like New York City have no authority to enforce local safety/code requirements. With respect to foreign missions and consulates, while there is some authority that these properties are subject to the City Fire and Construction Codes, other authority suggests otherwise, and City jurisdiction over these properties is unclear at best.¹⁴²

Similarly, FDNY and DOB have limited and variable enforcement power against state and state-created building owners, such as the Metropolitan Transportation Authority (“MTA”) and the Port Authority of New York and New Jersey (the “Port Authority” or “PA”). As a general matter, the state has long taken the position that local building and fire codes do not apply to its properties, a position reflected (among other places) in its property-related publications.¹⁴³ The City’s ability to enforce the Building and Fire codes against State authorities and other state-affiliated entities is also limited, though enforceability often differs based upon the enabling statute of the entity in question.¹⁴⁴

In practice, FDNY field units and Bureau of Fire Prevention inspectors are granted regular access to conduct cyclical inspections at many federal, state and international properties, including post offices, many foreign embassies, and at the state level, MTA-owned and other transportation- related facilities. But these inspections are allowed only as a courtesy, and although inspection results are forwarded to building owners, no fines or penalties are imposed for violating conditions. Despite lacking formal enforcement authority, FDNY has found that most non-jurisdictional building owners are cooperative during the inspection process and take the recommended actions to address safety concerns. Both uniformed and civilian inspectors

¹⁴¹ 15 U.S.C. § 2227(f). In practice, FDNY does not have a specific fire plan for every federal building, but rather uses a generic High Rise Firefighting Plan.

¹⁴² Both foreign missions containing diplomatic staff and foreign consulates in New York City are required by U.S. State Department diplomatic notes to comply with local codes, and a 1993 note even provides that applications for City building and construction permits and certificates of occupancy should be submitted to the City Commission for the United Nations, Consular Corps, and Protocol. State Dept. Diplomatic Note HC-16-93, U.S. Mission to the United Nations, dated April 14, 1993. It should be noted, however, that other legal authority appears to limit the City’s ability to enforce such requirements. The Vienna Conventions on Consular and Diplomatic Relations state that consular and diplomatic premises are generally “inviolable” without the consent of the head of the mission or consulate, which consent is often withheld. See Vienna Convention on Consular Relations and Optional Protocol on Disputes, 21 U.S.T. 77, In force since Dec. 24, 1969, Art. 31; Vienna Convention on Diplomatic Relations and Optional Protocols, U.N.T.S. Nos. 7310-7312, vol. 500, pp. 95-239, In force since April 18, 1961, Art. 22.

¹⁴³ For example, a Design Procedures Manual published by the State Office of General Services states that OGS design and construction “is not obligated to comply with local codes if the project is located on New York State owned land,” though the manual encourages designers to “comply with local codes.” See NYS OGS, Design & Construction Design Procedures Manual § 9.9, available online at <http://www.ogs.state.ny.us>. Note that there are strong legal arguments to support the conclusion that State-owned properties in the City should not be exempt from local regulation, see, for example, Matter of Crown Communication New York, Inc. v. Department of Transportation, 4 N.Y.3d 159 (2005), and it remains an open question in many contexts.

¹⁴⁴ With respect to the MTA and its subsidiaries, for instance, state law provides that local regulations do not apply to MTA-owned “transportation-related facilities.” Public Authorities Law § 1266(8). By contrast, the School Construction Authority (“SCA”) is clearly required under State law to comply with City building, fire and electrical codes in the construction, repair and maintenance of educational facilities. Public Authorities Law § 1733.

report they are able to gain access to a majority of these premises to conduct inspections, though certain embassies (e.g., China and Cuba) consistently deny access to FDNY.

Another special case is the United Nations Headquarters in Manhattan. The City has long had fire safety-concerns with the United Nations headquarters—including the U.N. General Assembly building and the Secretariat—that have not been addressed despite provision in the U.N. Headquarters Agreement allowing “the reasonable application of fire-protection regulations of the appropriate American authorities.”¹⁴⁵ While the U.N. has allowed fire inspectors access to the buildings, its compliance has been limited to conditions that could be conveniently corrected. While limited progress has recently been made to address more serious issues after a multi-year effort, the U.N. has continued to be reluctant to provide the funding and resources needed to correct serious violations at the headquarters until its planned new building is complete.

The main problem identified by FDNY with respect to non-jurisdictional properties is the information gap created by the exemption of these owners from mandatory notification requirements that other buildings in the City are required to meet. Unless FDNY is voluntarily notified or comes across issues through the informal cyclical inspection process, the Department is left unaware of changed building conditions, and as a result may not have complete and current information in the event of an emergency.

The Department of Building’s access to these properties is much more infrequent than FDNY’s, and because these properties are not subject to DOB permitting requirements for construction and demolition, the Department has little or no information about such work at these properties. As a result, absent agreements or voluntary filings, DOB does not receive or review plans, issue permits, or conduct inspections at non-jurisdictional properties.

B. Liaison Relationships, MOUs and Other Arrangements

Despite these limitations, over the years, both FDNY and DOB have taken steps to address the information gap, through liaison relationships, memoranda of understanding, and similar written agreements that provide access, but little or no formal enforcement authority to DOB and FDNY. FDNY has particularly strong relationships with transportation-related non-jurisdictional entities operating in the City through its Public Transportation Safety Unit (“PTSU”). Established in 1985, PSTU has established liaison relationships with the MTA, the Port Authority, and a number of other entities.¹⁴⁶ In practice, PTSU receives information about safety violations or dangerous conditions at properties owned by transportation entities from Companies in the field, the Bureau of Fire Prevention, or occasionally the non-jurisdictional

¹⁴⁵ Agreement Between the United Nations and the United States of America Regarding the Headquarters of the United Nations, at § 8 (June 26, 1947). The Headquarters Agreement also provides, however, that the headquarters district shall be “inviolable” and that “[f]ederal, state or local officers or officials of the United States...shall not enter the headquarters district to perform any official duties therein except with the consent of and under conditions agreed to by the Secretary-General.” *Id.* § 9.

¹⁴⁶ Entities with which the FDNY has a liaison relationships are Amtrak, Cross Harbor Railroad, CSX Railroad, JFK and LaGuardia Airports, Long Island Rail Road, Medavacs, MTA, Metro-North Railroad, NYS DOT Bridges and Tunnels, NY & Atlantic Railroad, the Port Authority of New York and New Jersey, Port Authority Trans-Hudson, and the Roosevelt Island Tramway.

entity's liaison. PTSU then follows up with the entity, often in writing. In most instances, PTSU receives a written confirmation that the violation has been cured.

Through these relationships, FDNY communicates frequently with their counterparts at non-jurisdictional entities and can promptly resolve most safety issues. For instance, the PTSU holds regular meetings with NYC Transit and Metro-North, along with monthly meetings on issues at Penn Station and Atlantic Terminal. FDNY is generally comfortable with the level of cooperation and notification that these entities provide, though the Department acknowledges that there may be construction and demolition work that it does not know about. FDNY reports that these liaison relationships generally facilitate FDNY's goals of maintaining awareness about and addressing unsafe building conditions.

FDNY and DOB have also entered into a variety of MOUs and similar written agreements that lay out basic protocols allowing the City to conduct building and fire inspections for such properties. But these agreements generally do not grant enforcement authority to DOB or FDNY, and are subject to amendment or termination when there is agency turnover—or simply a change of heart among agency personnel. Among the agreements still in force are the Port Authority's 2004 World Trade Center redevelopment agreement with the City, specifically those provisions related to Building Code compliance. Under the agreement, the Port Authority agreed that all construction by the Port Authority and leases at the WTC site will comply with the Building Code, except for certain areas of the PATH Terminal, which will comply with the National Fire Protection Association Codes.¹⁴⁷ Other plan variations also require DOB's consent. DOB reports that the Port Authority has continued to abide by this agreement.¹⁴⁸ FDNY has also entered into agreements with the Port Authority, including a 1993 MOU that authorizes the Bureau of Fire Prevention to conduct fire safety inspections at any Port Authority facility, and calls on the Port Authority to undertake corrective action to address any deficiencies identified. The MOU also provides for FDNY review of new fire safety systems. More recently, FDNY entered into a 2005 MOU with the NYC Transit Authority (NYCTA) that establishes procedures for FDNY approval of NYCTA's Certificate of Fitness Program.

Issue 28: While the Working Group found that the City's relationships with a number of non-jurisdictional entities is strong, the informal and voluntary nature of compliance with the City's Building and Fire Codes by these owners creates a risk that there is construction, demolition or other hazardous activity taking place at these properties¹⁴⁹ that the City does not know about, cannot require building

¹⁴⁷ While the Port Authority and its lessee do not need permits or Certificates of Occupancy from DOB, pursuant to an MOU, any other variation from the Building Code requires the consent of DOB.

¹⁴⁸ DOB is in discussions with the PA about a protocol regarding the inspection and use of cranes at the World Trade Center site.

¹⁴⁹ Note that like DOB and FDNY, DEP is similarly limited in its ability to issue violations to non-jurisdictional entities—though agency inspectors seek to conduct inspections in response to public complaints. Consulates and other international entities do not always admit inspectors, nor are they required to abide by the DEP Code and rules for asbestos abatement. As a result, asbestos abatement taking place in these locations could go unmonitored. At these properties, DEP inspectors issue violations to contractors, but generally do not cite the owners (e.g., foreign governments). With respect to state entities, the State Department of Labor (DOL) has primary responsibility for asbestos compliance at properties owned or leased by the State or state authorities, pursuant to DEP's 1992 MOU with the State DOL. However, DEP responds to all complaints received after normal business hours and performs inspections, even of state-owned properties.

owners to correct, and may not be prepared to address in the event of an emergency.

Recommendation

Rec. 33: Non-jurisdictional buildings. The City should pursue state and federal legislation to require that any building built or demolished in New York City is subject to the City's Building and Fire Codes, regardless of owner. Until that requirement is in place, the City should seek to enter into agreements with federal, state and international building owners to allow DOB and FDNY to conduct inspections and assure code compliance so that these agencies have critical information about conditions at these properties that could affect public safety. At a minimum, any agreements between non-jurisdictional owners and FDNY, DOB, or DEP should include: (1) a commitment to comply with the City's Construction and Fire Codes and to obtain consent from the agencies for variances from the codes; (2) permission for FDNY, DOB, and DEP to conduct inspections during construction, demolition, and abatement activity and to take actions to ensure that violating conditions are addressed.

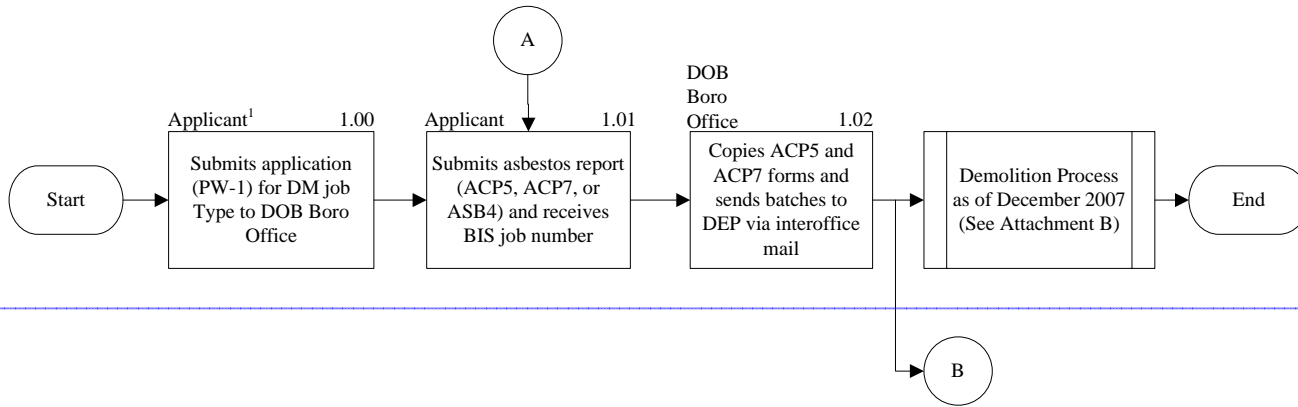
VI. Conclusion

The Working Group quickly recognized that implementation of many of the recommendations developed through this process did not have to wait for the release of a report, but could begin immediately. In fact, a number of the recommendations made here have been implemented or are under way, for example: DOB now sends FDNY electronic batches of construction and demolition permits issued on a weekly basis that contain key permit, job, and enforcement data; and DEP now notifies FDNY via email of abatement projects that meet certain thresholds.

DEP, DOB and FDNY have also done considerable work to identify the rule and/or legislative changes that will be needed to implement many of these recommendations, and they are working together to revamp the available public information about demolition and abatement operations. Some recommendations, such as establishing a permit requirement for complex abatement jobs, will require consultation with affected industries, and this outreach has already begun. Although we will not be able to fully implement all of these recommendations immediately, the Working Group will continue to convene in the coming weeks and months and to report on its progress implementing these important measures to improve the safety of demolition and abatement operations for workers, first responders, and all New Yorkers.

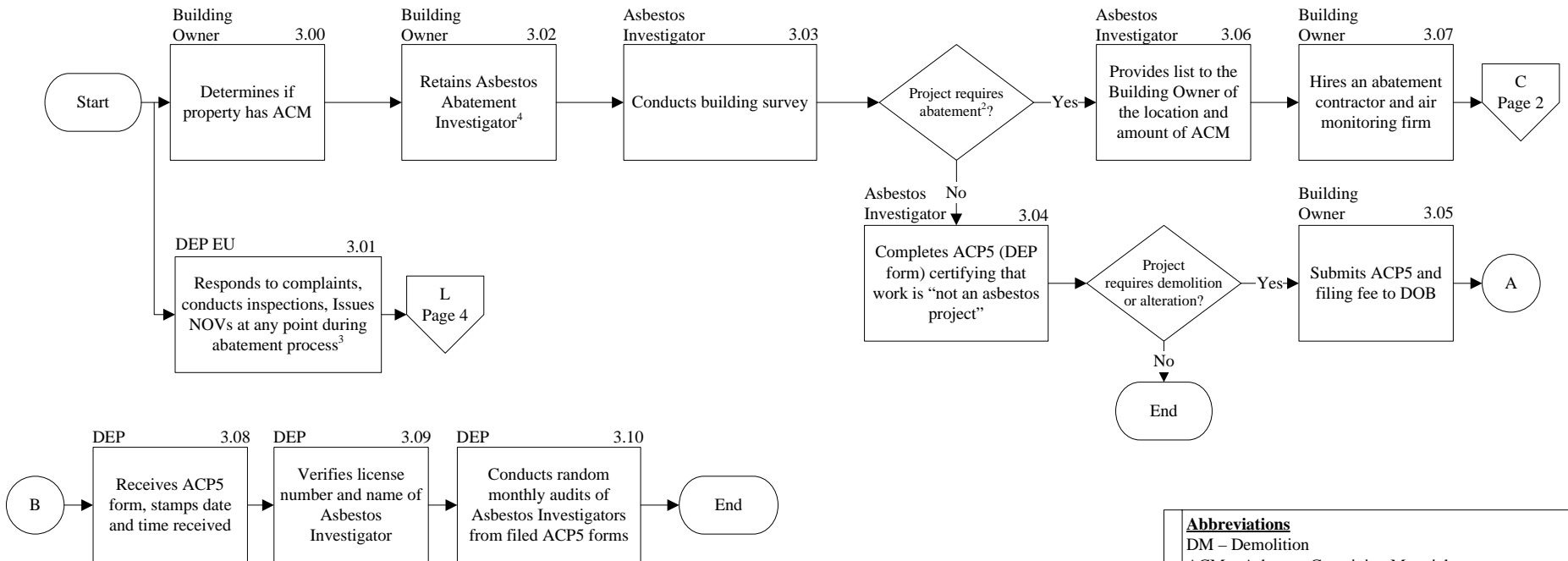
Abatement Operations as of December 2007

DOB



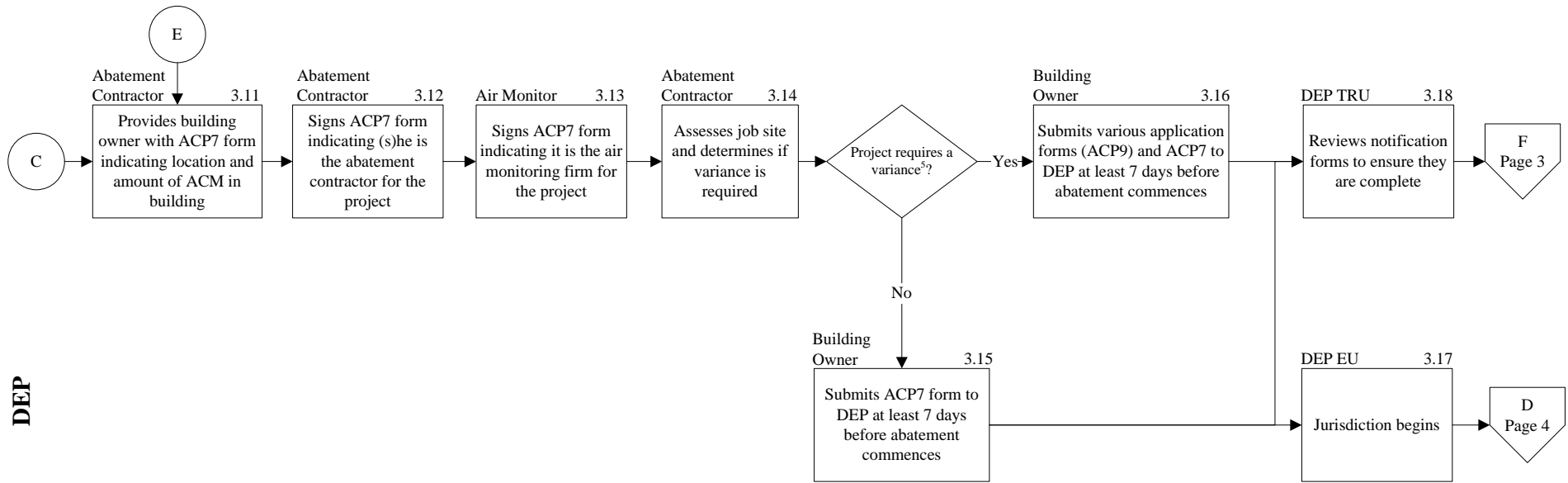
FDNY

DEP



Abbreviations	
DM	– Demolition
ACM	– Asbestos-Containing Material
ACP 5	– “Not an Asbestos Project Notification” form (DEP) ⁹
ACP 7	– “Asbestos Project Notification” form (DEP) ¹⁰
ASB 4	– Exemption from abatement form (DOB) ¹¹
DEP EU	– DEP Enforcement Unit
DEP TRU	– DEP Technical Review Unit

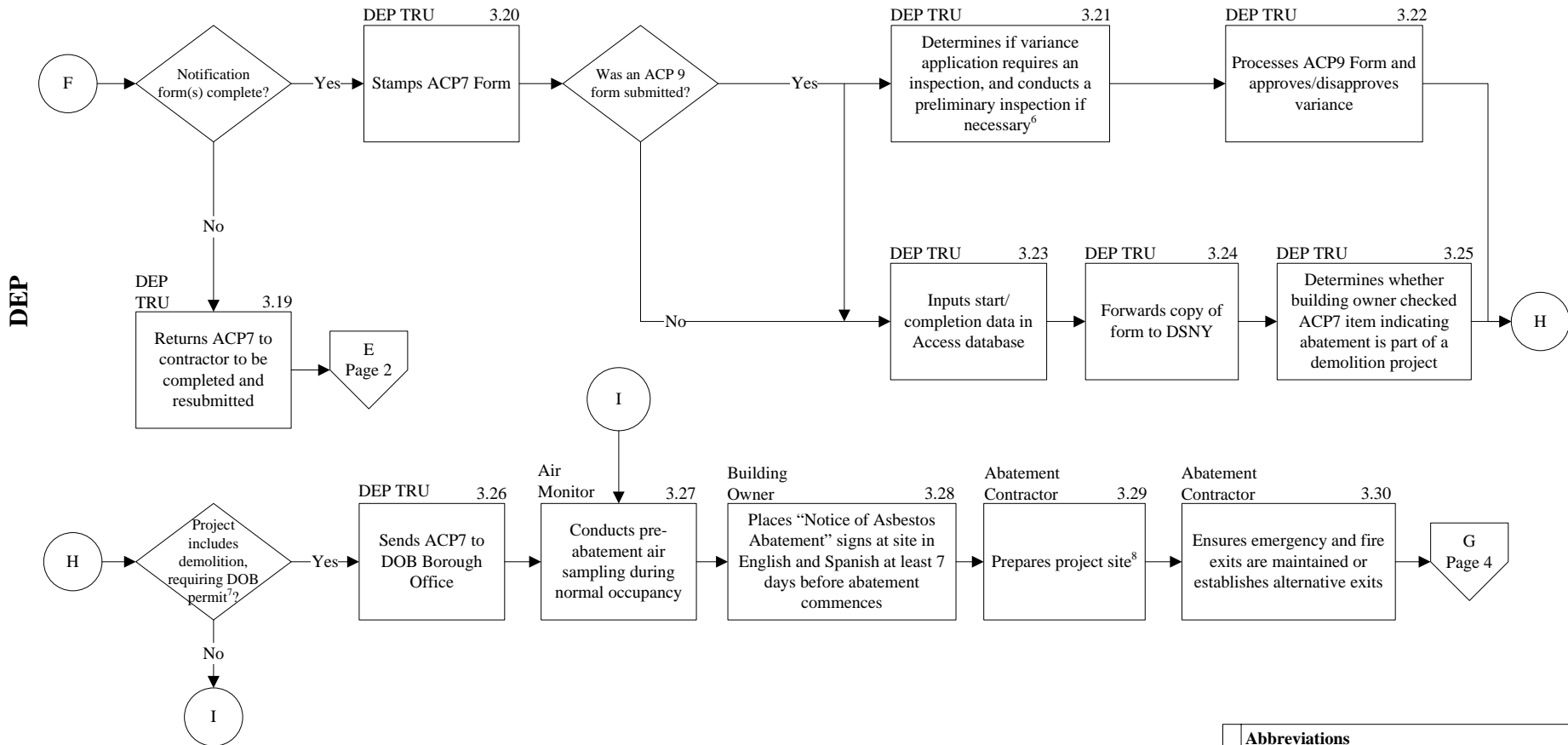
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DEP

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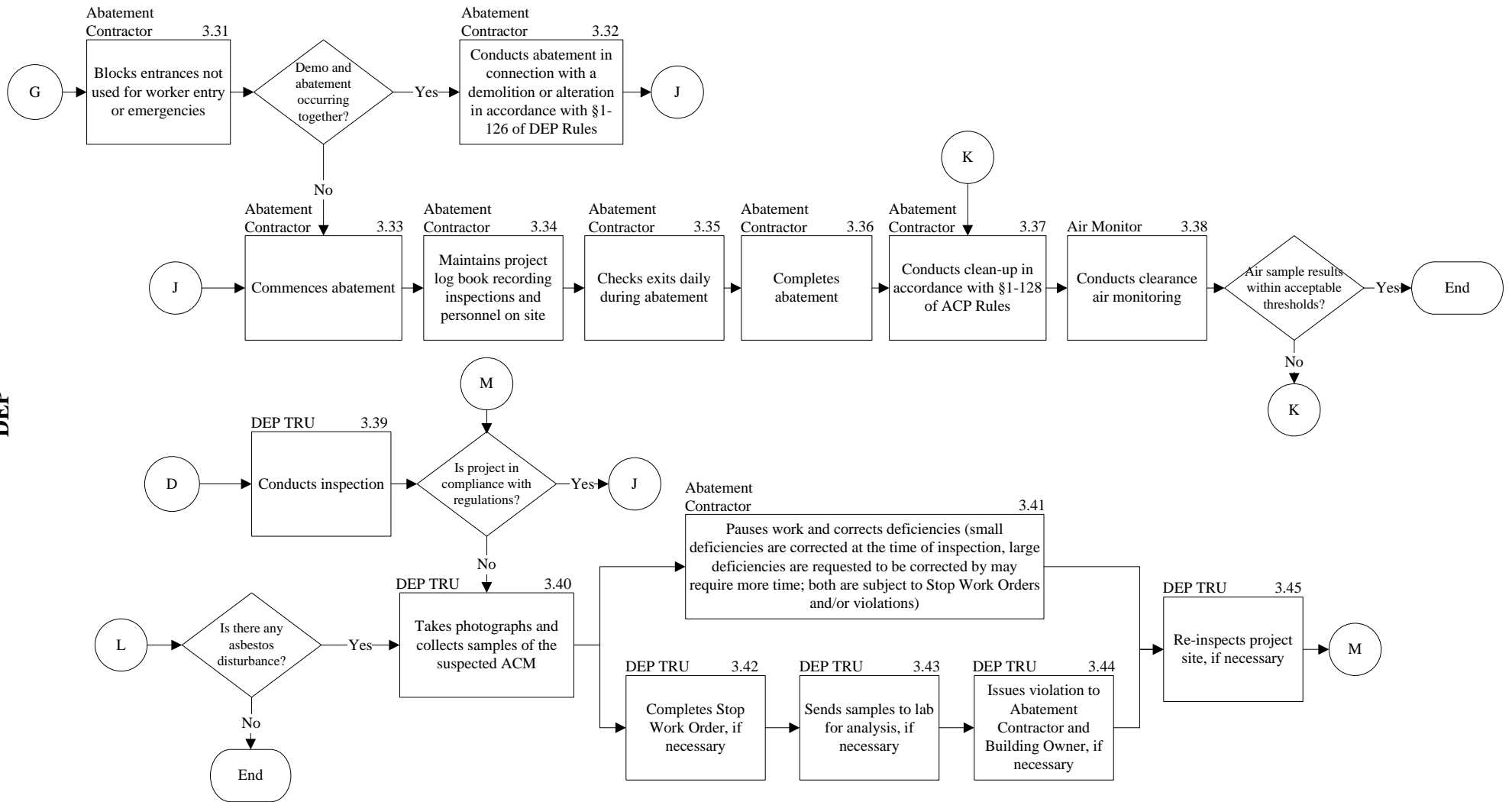
Abatement Operations as of December 2007



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DEP



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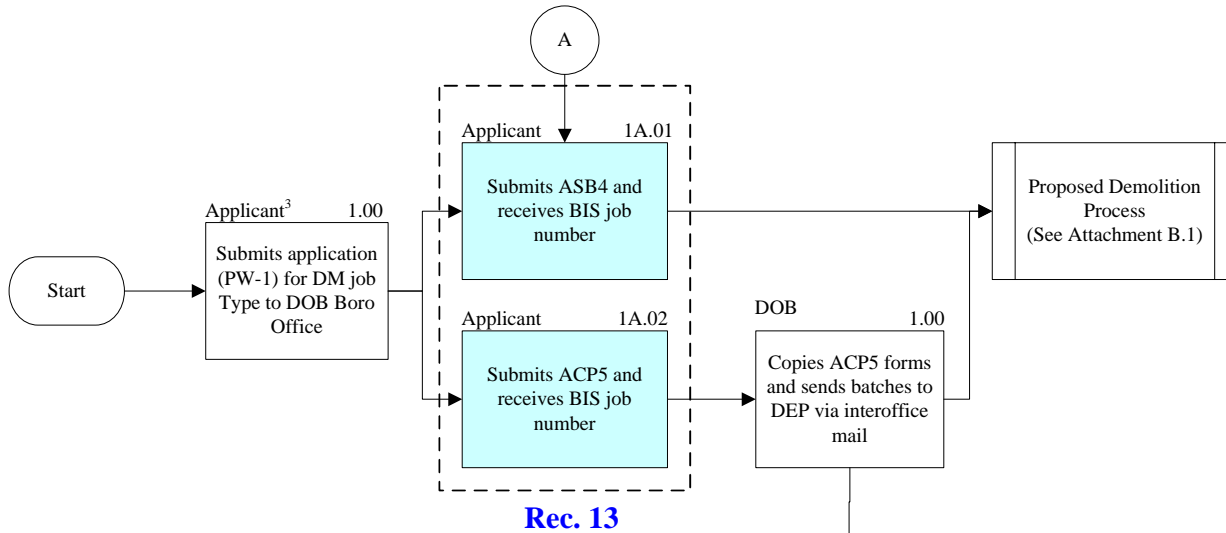
Abatement Operations as of December 2007

(notes)

1. The PW-1 is prepared and signed by the P.E., R.A. or demolition contractor, and signed by the Building Owner. The application must contain an asbestos report (ACP5, ACP7, or ASB4 were all acceptable asbestos reports prior to December 2007).
2. A project requires asbestos abatement notification when it contains more than 25 linear feet, or 10 square feet of friable ACM.
3. The DEP Enforcement Unit responds to NYC 311 complaints and other active public complaints at anytime during the process within approximately 3 hours of notification.
4. DEP certifies Asbestos Investigators.
5. Determines if the project requires a variance from the rules on conducting an abatement, see 15 R.C.N.Y. §1-03 (variance procedures).
6. The DEP inspector inspects the site to determine if the variance should be granted. The supervisor of the Technical Review Unit has final authority to approve variances.
7. Additionally, a copy of the ACP 7 is forwarded weekly to the appropriate DOB Borough Office if the ACP 7 indicates that the abatement is being conducted in connection with a demolition, boiler or sprinkler replacement, fireproofing replacement, or other activity. DEP rules provide for the submission of an ACP 7 directly to DOB when abatement is part of a demolition, renovation or similar type of work. For projects that do not require DOB approval, the ACP 7 must be filed with DEP. See 15 RCNY §§ 1-23 to 1-26.
8. Project site preparation includes (but is not limited to): shutting off electricity to all work areas; providing safe temporary power and lighting; constructing the decontamination enclosure system requiring isolation of HVAC and plasticizing of electrical outlets and equipment; shutting down and locking-out HVAC systems and installing isolation barriers; cleaning work area using HEPA filtered vacuum equipment and/or wet cleaning methods; segregating work area from remainder of the work site with temporary structural partitions; and sealing floor and wall surfaces with minimum of 2 layers of 6-mil plastic sheeting, see 15 RCNY § 1-81(1).
9. An ACP5 form is used to certify that there is no asbestos work required or that the scope of work is less than the threshold for filing with DEP, see 15 RCNY § 1-22, 1-23 and 1-25.
10. An ACP7 form is used to notify DEP that abatement will take place, which is required if a project contains 25 or more linear feet, or more than 10 square feet of friable ACM, see 15 RCNY § 1-02
11. The ASB4 form is completed by a Registered Architect, Professional Engineer, licensed plumber or licensed oil burner installer—states that the type of work to be performed (e.g., erecting a flagpole, installing an outdoor pool, exterior scaffolding) would not impact asbestos containing material, see 15 RCNY § 1-23.

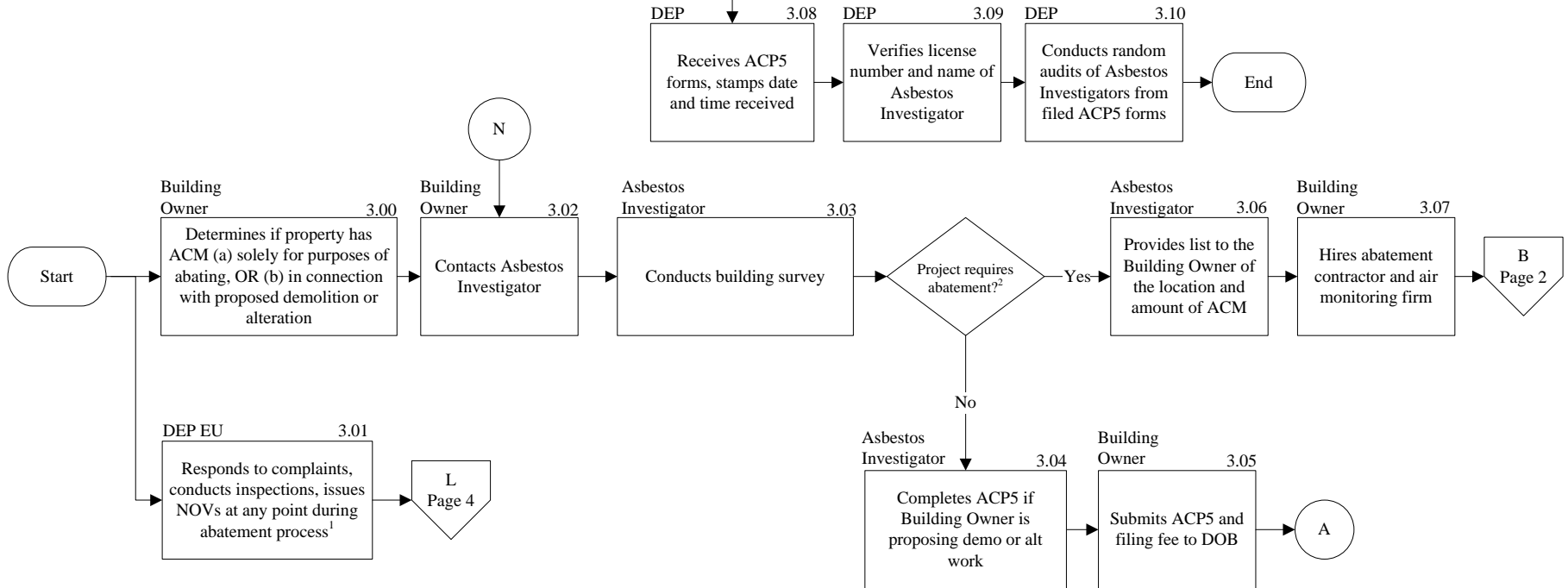
Proposed Abatement Operations

DOB

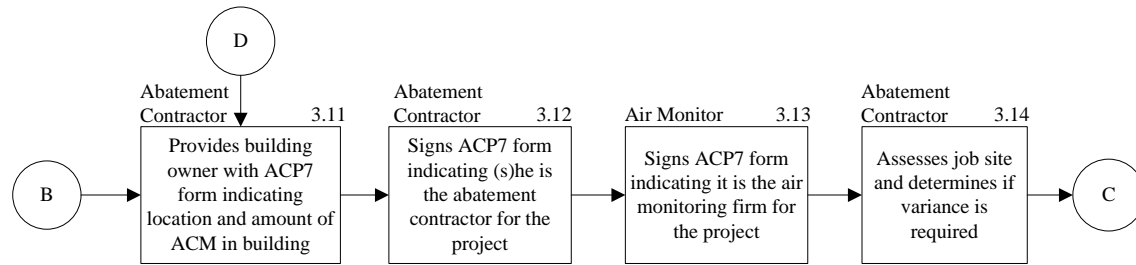


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DEP EU	– DEP Enforcement Unit
DEP TRU	– DEP Technical Review Unit
DEP A-TRU	– DEP Abatement Technical Review Unit (proposed)

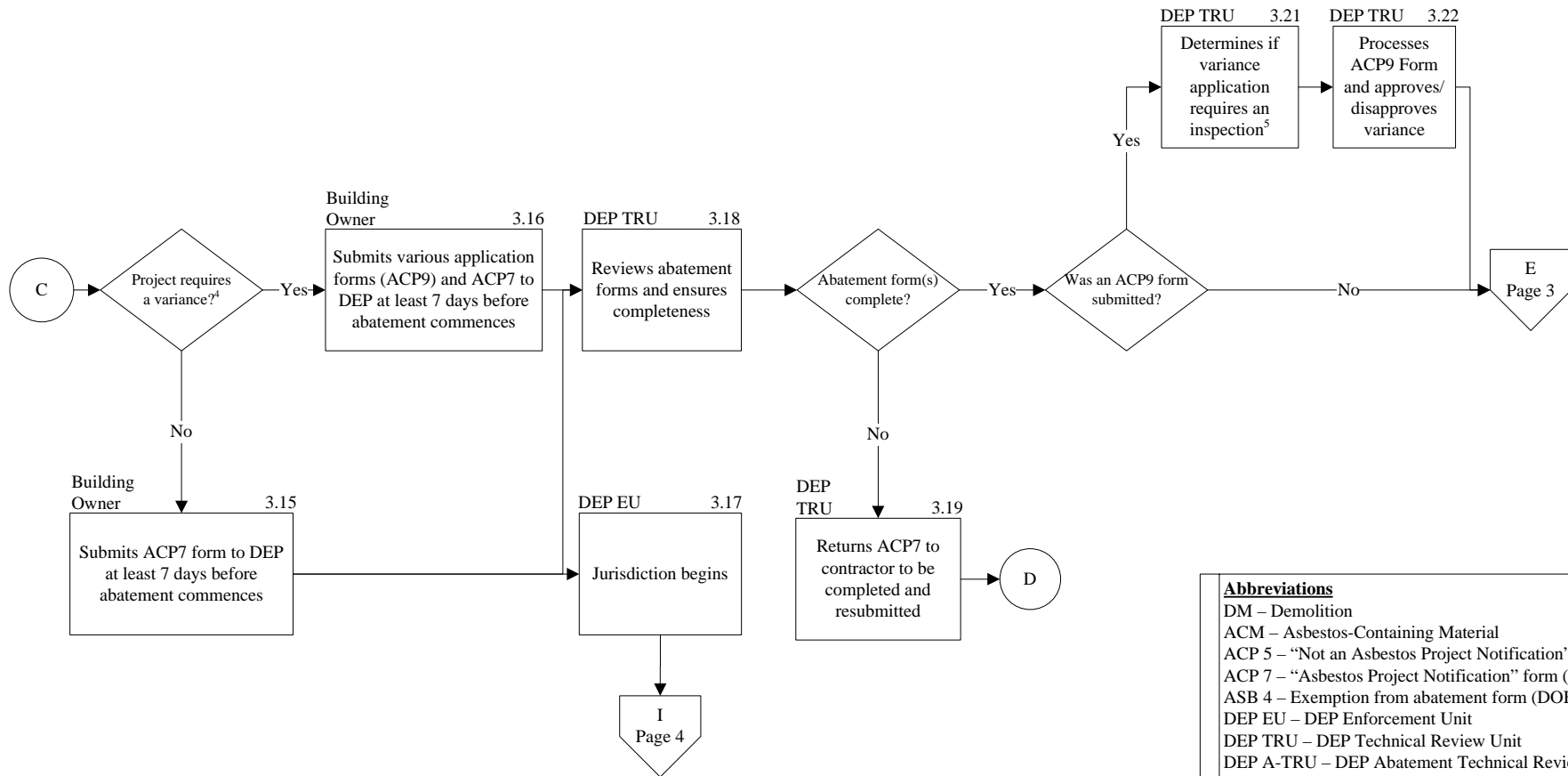
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Proposed Abatement Operations

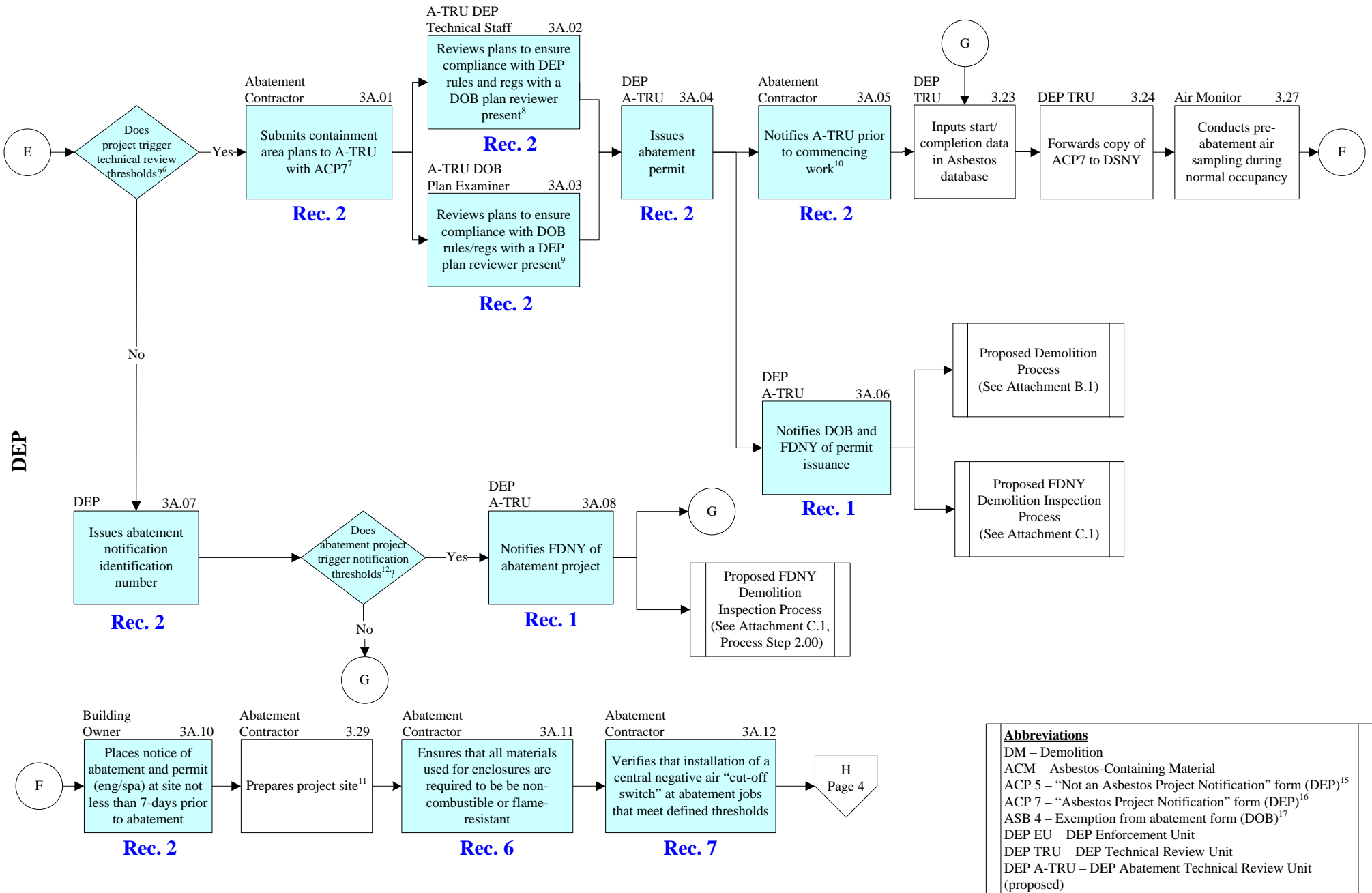


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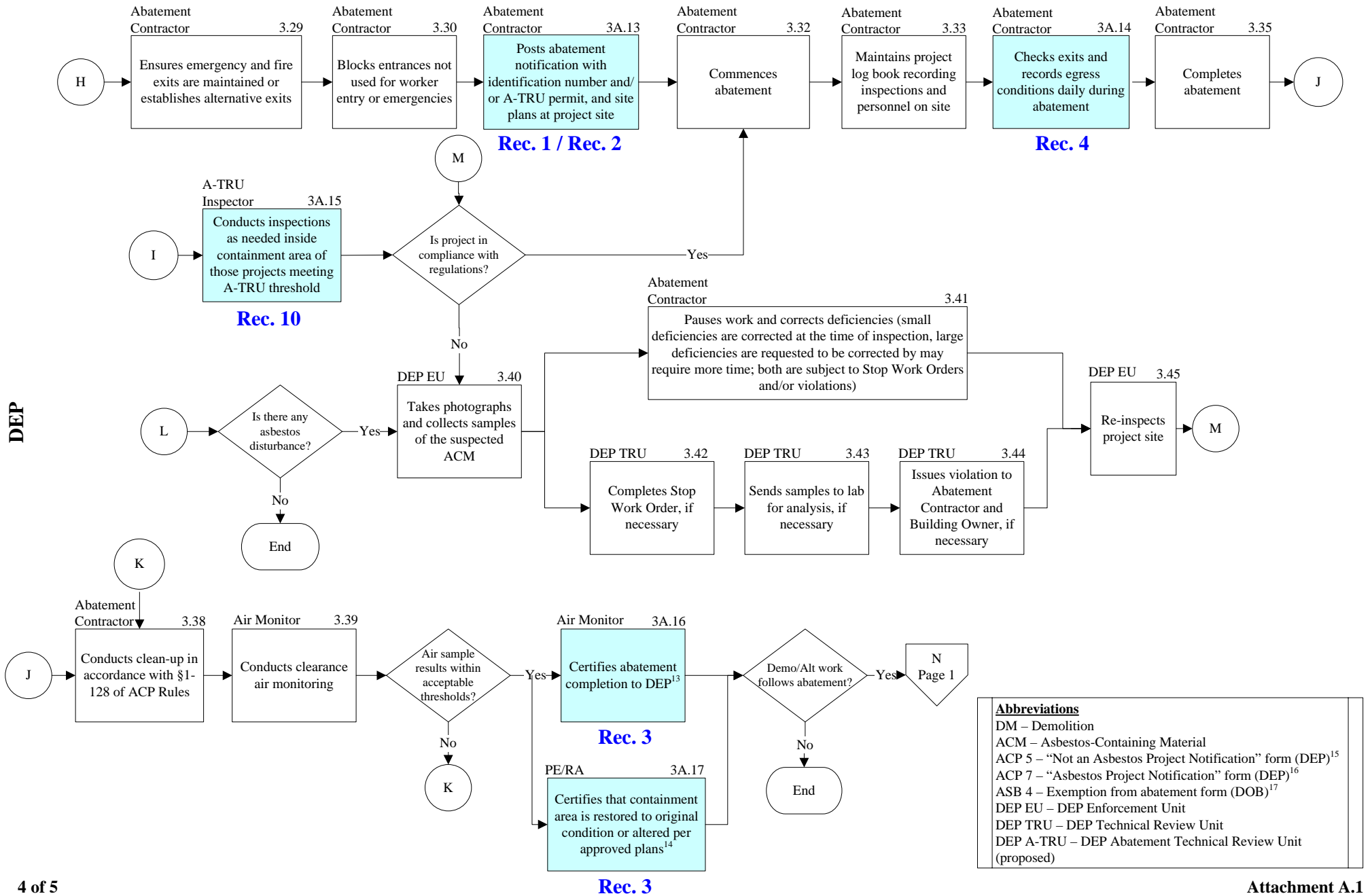
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Proposed Abatement Operations



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Proposed Abatement Operations

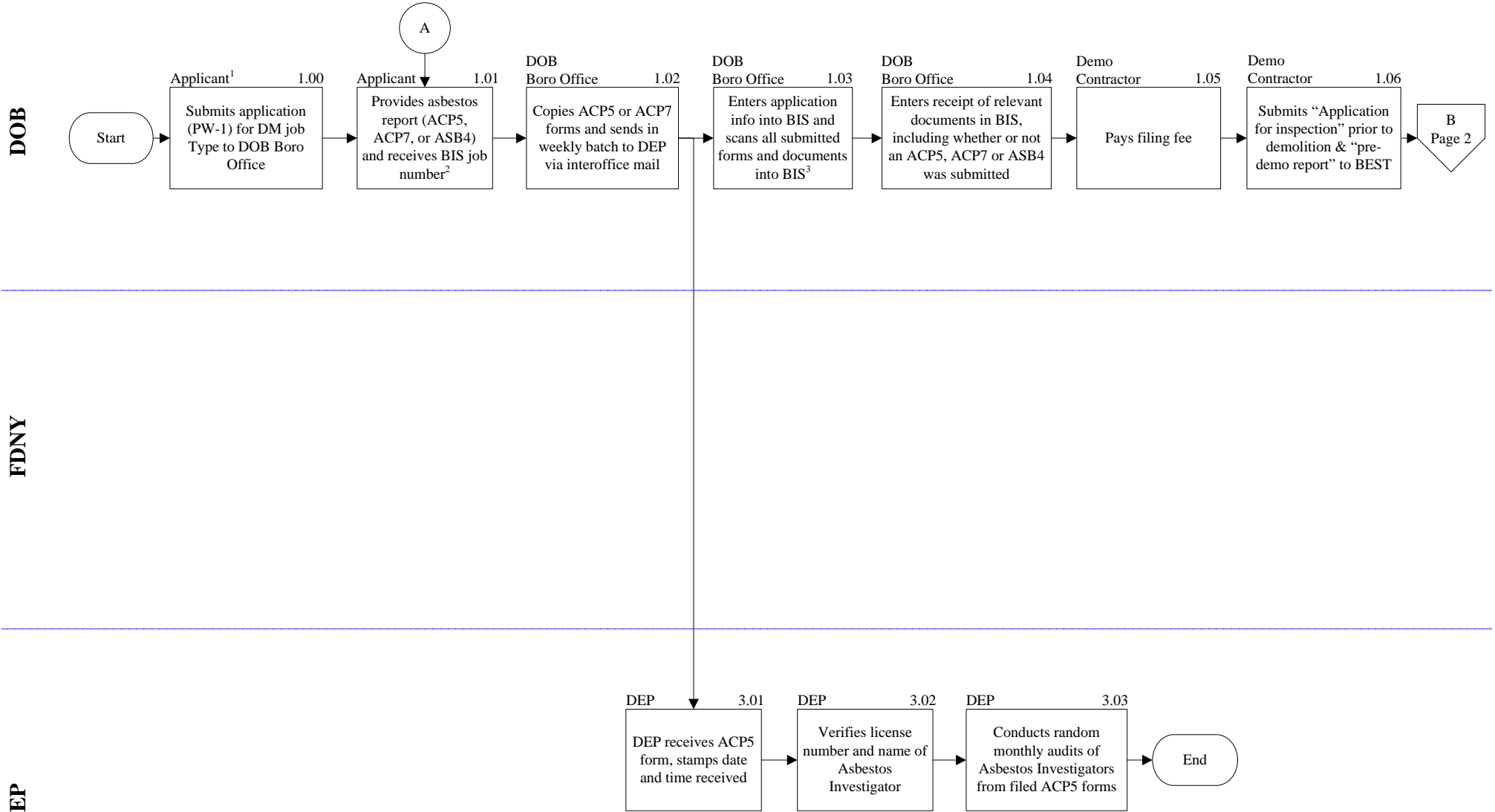


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Proposed Abatement Operations (notes)

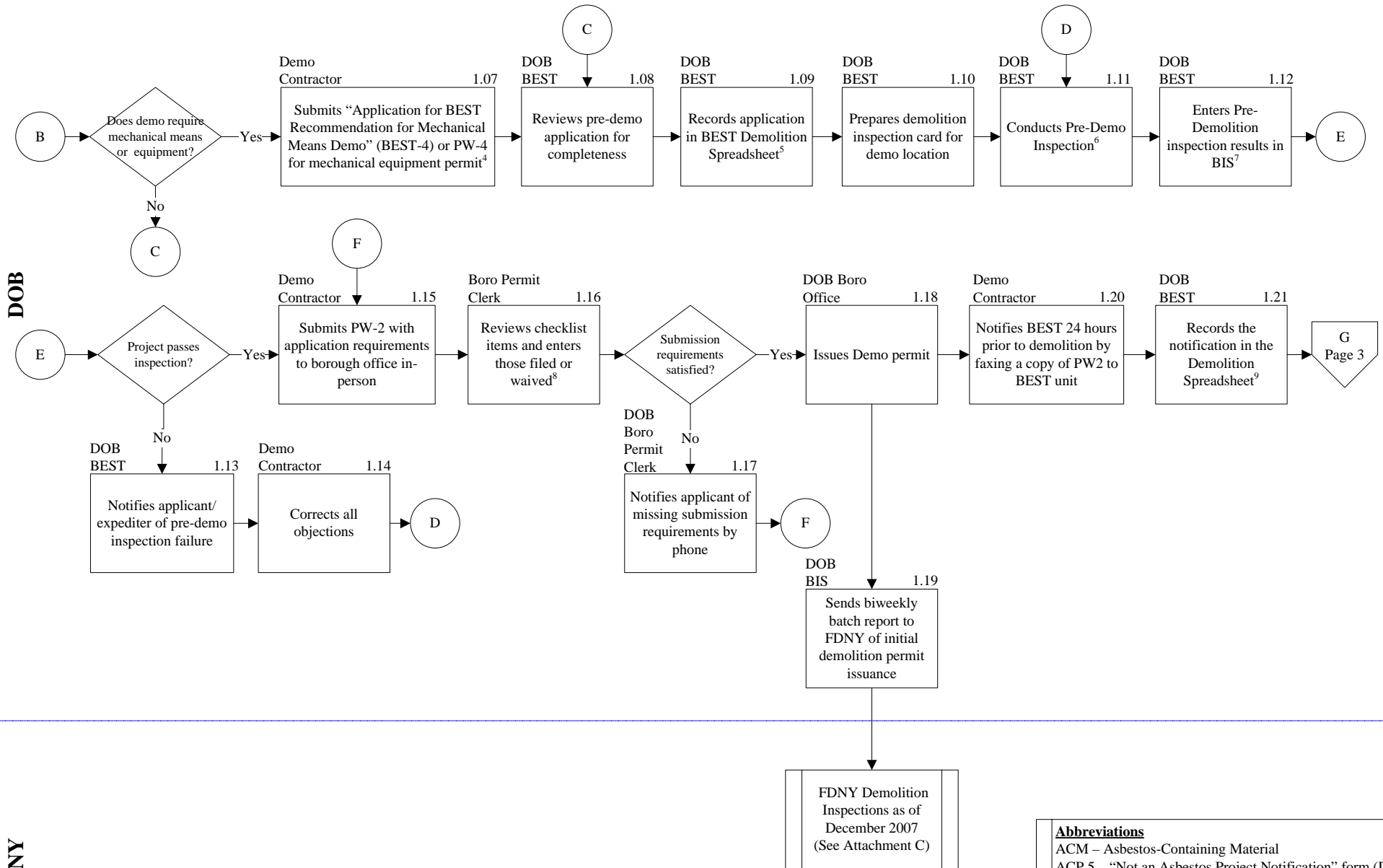
1. The DEP Enforcement Unit responds to NYC 311 complaints and other active public complaints at anytime during the process within approximately 3 hours of notification.
2. A building owner does not need to file an abatement project notice with DEP if a) there is no ACM on the building premises; b) ACM will not be disturbed during demolition/alteration work; c) the cumulative surface area of ACM in the area undergoing work is < 10 square feet or 25 linear feet; or, d) the building is exempt from abatement requirements, see 15 RCNY § 1-23(a).
3. The PW-1 is prepared and signed by the P.E., R.A. or demolition contractor, and signed by the Building Owner. The application must contain either an ASB4 or an ACP5. DOB will modify its filing requirements as follows: a) for DM (full demolition) jobs, DOB will not issue a permit until submission of either a “not an asbestos project” form (now known as the ACP5 form) or work type exemption form (now known as the ASB4 form) is submitted. It should be noted that these forms may be modified as necessary.
4. Determines if the project requires a variance from the rules on conducting an abatement, see 15 RCNY, §1-03 (variance procedures).
5. The DEP inspector inspects the site to determine if the variance should be granted. The supervisor of the Technical Review Unit has final authority to approve variances.
6. DEP will require an asbestos abatement contractor to undergo technical review and obtain an asbestos abatement permit before commencing abatement for any abatement job that will: (i) affect the maintenance of the means of egress in the building, as regulated by §1027 of the New Fire Code and defined under §1002 of the New Fire Code; or (ii) affect the fire protection system in the building, as defined under §902 of the New Fire Code; or (iii) require construction, alteration, or demolition work that would otherwise require a DOB-issued permit, as regulated by §28-105.1 of the 2008 Construction Codes and defined under §28-105.4.2.1 of the 2008 Construction Codes.
7. In accordance with the Building Code, construction documents for the containment area work must be signed/sealed by a P.E./R.A.
8. Within the A-TRU Unit, DEP technical staff will conduct a technical review of the ACP7 and the containment area plans encompassing requirements of the DEP Asbestos Control Program (e.g., materials and equipment used in abatement, personal protection and equipment specifications, work place procedures, and enclosure systems).
9. Within the A-TRU unit, a DOB plan reviewer will conduct a technical review of the containment area plans in connection with the abatement plan to ensure compliance with the Building Code and DOB Rules (e.g., structural stability, maintenance of legal means of egress, etc.). DEP’s issuance of an A-TRU abatement permit will include an underlying DOB certification that requirements under the Building Code and DOB Rules have been met.
10. An evaluation is to be conducted by the City to determine whether a commencement notification is necessary.
11. Project site preparation includes activity such as: Shutting-off electricity to all work areas; providing safe temporary power and lighting; constructing the decontamination enclosure system requiring isolation of HVAC; plasticizing electrical outlets and equipment; shutting down and locking-out HVAC systems; installing isolation barriers; cleaning work area using HEPA-filtered vacuum equipment and/or wet cleaning methods; segregating work area from remainder of the work site with temporary structural partitions; sealing floor and wall surfaces with a minimum of 2-layers of 6-mil plastic sheeting.
12. FDNY, DEP and DOB have agreed that DEP will send FDNY notice of any abatement job: (i) In a building, excluding roofs and one- or two-family homes, that is 75 feet or higher and the floor area under containment is 7,500 square feet or greater on any single floor; or (ii) In a building that is 75 feet or higher and the area under containment consists of the entire floor, regardless of size; or (iii) In a building that requires an asbestos abatement permit pursuant to standards promulgated by DEP.
13. The completion notification includes certification from the air-sampling monitor that the final air sample results are within the threshold.
14. This step is modeled off of the Department of Buildings D14 filing process which allows professional certification of job sign-off by a P.E./R.A.; the professional who signs off on the job is not required to be the same professional who submitted the construction drawings. An evaluation is to be conducted by the City to determine whether certification is necessary.
15. An ACP5 form is used to certify that there is no asbestos work required or that the scope of work is less than the threshold for filing with DEP, see 15 RCNY § 1-22, 1-23 and 1-25.
16. An ACP7 form is used to notify DEP that abatement will take place, which is required if a project contains 25 or more linear feet, or more than 10 square feet of friable ACM, see 15 RCNY § 1-02.
17. The ASB4 form is completed by a Registered Architect, Professional Engineer, licensed plumber or licensed oil burner installer—states that the type of work to be performed (e.g., erecting a flagpole, installing an outdoor pool, exterior scaffolding) would not impact asbestos containing material, see 15 RCNY § 1-23.

Full Demolition Operations as of December 2007



Abbreviations	
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ACP 7	“Asbestos Project Notification” form (DEP) ¹⁵
ASB 4	Exemption from abatement form (DOB) ¹⁶
DOB BEST	DOB Building Enforcement Safety Team
DOB BIS	DOB Building Information System
SSM	Site Safety Manager

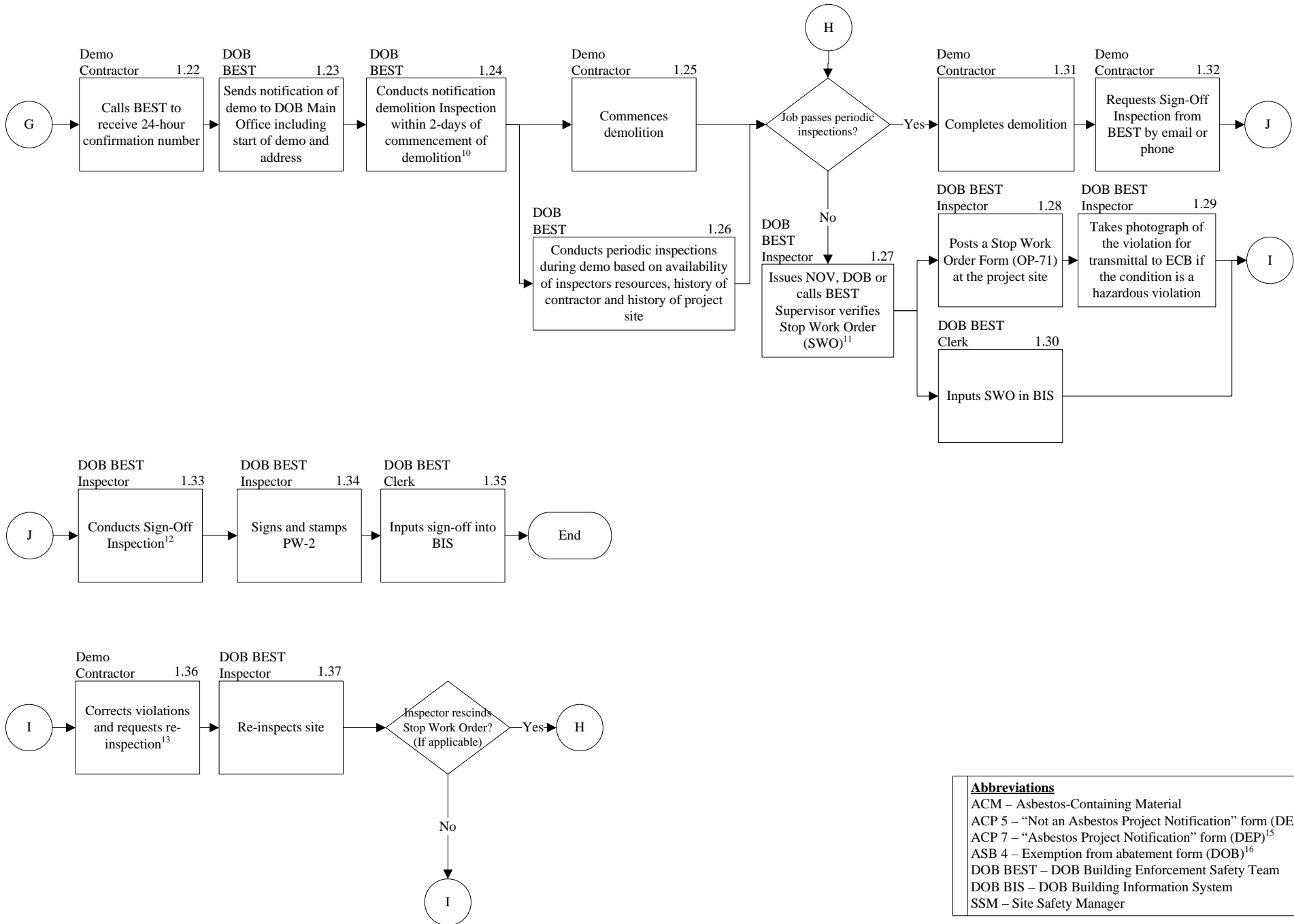
Full Demolition Operations as of December 2007



Abbreviations	
ACM	Asbestos-Containing Material
ACP 5	“Not an Asbestos Project Notification” form (DEP) ¹⁴
ACP 7	“Asbestos Project Notification” form (DEP) ¹⁵
ASB 4	Exemption from abatement form (DOB) ¹⁶
DOB BEST	DOB Building Enforcement Safety Team
DOB BIS	DOB Building Information System
SSM	Site Safety Manager

Full Demolition Operations as of December 2007

DOB

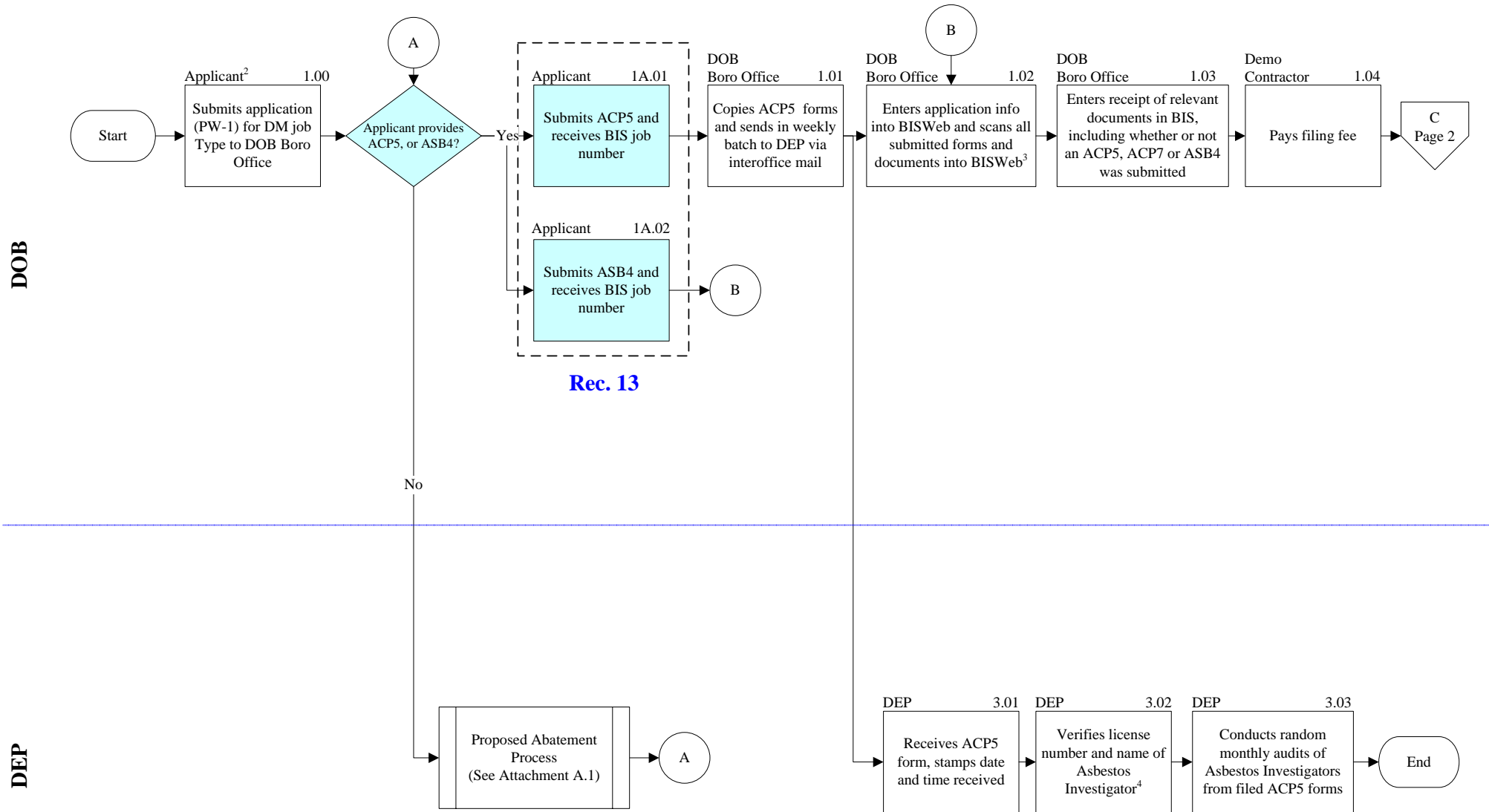


Abbreviations	
ACM	Asbestos-Containing Material
ACP 5	“Not an Asbestos Project Notification” form (DEP) ¹⁴
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Full Demolition Operations as of December 2007 (notes)

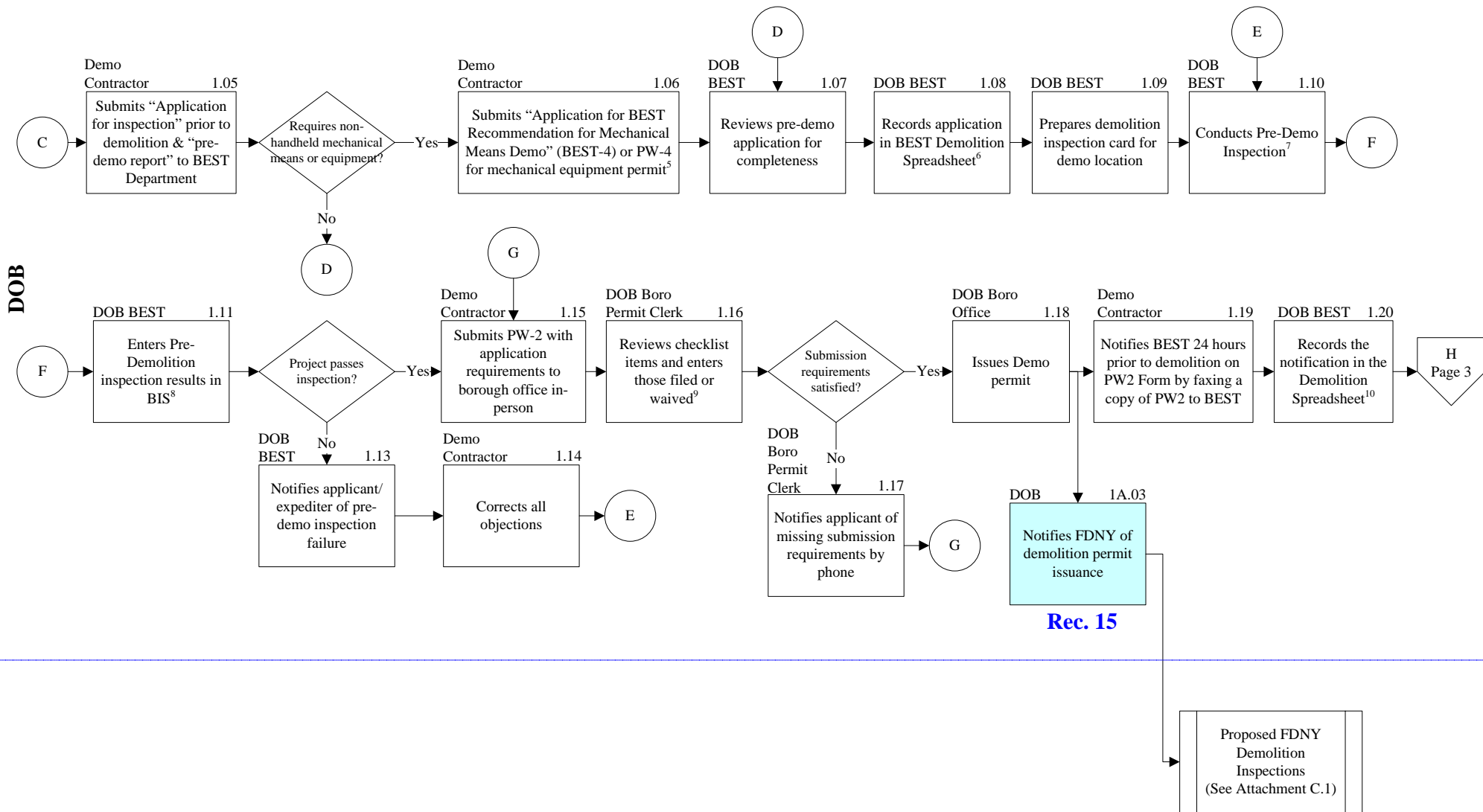
1. The PW-1 is prepared by the P.E., R.A. or demolition contractor, and signed by the P.E., R.A. or demolition contractor and the Building Owner. The application must contain either an ASB4 (DOB form) from a P.E./R.A. certifying that the work is exempt from asbestos requirements -OR- an ACP5 (DEP form) from a certified asbestos investigator certifying that work is “not an asbestos project.”. The application must contain either an ASB4 (DOB form) from a P.E./R.A. certifying that the work is exempt from asbestos requirements -OR- an ACP5 (DEP form) from a certified asbestos investigator certifying that work is “not an asbestos project.”
2. DOB policy requires an ACP5 or ASB4 for Full Demolition (DM) permit issuance (see OPPN 9 of 1993).
3. As of December 2007, only Partial DMs that were filed as alteration jobs were scanned. As of June 23, 2008, DOB is scanning full DMs (anything filed as a DM job type).
4. BEST accepts and reviews the form, and the Borough Commissioner’s Office approves it.
5. Internal spreadsheet includes location, application date, inspection date, etc.
6. Pre-demolition inspection may include verifying the building, looking for the safety zone around the building, confirming vacancy, confirming that application forms are complete, etc. The inspector uses the B Form 2A which includes the following questions: Is the building vacant? Does the building have fire escapes or other exits used jointly with an abutting building? Will the removal of the fire escape or other exit affect the adjoining building? Has demolition commenced? Has an ECB violation been issued? Mechanical versus non-mechanical demolition: If the demolition is mechanical, BEST inspects mechanical demolition equipment (e.g. crane).
7. Indicates if pass in BIS.
8. BIS will only issue a permit when all checklist items are “filed” or “waived.”
9. Information includes date PW-2 received and start date.
10. This pre-demolition inspection ensures existence of the building, that the stated height and number of floors was accurately reported to DOB, how the project affects the surrounding area, and that the building is vacant.
11. When the site, equipment or persons do not meet the Building Code, or Electrical Code requirements, the BEST inspector issues a violation. When a violation results in a stop work order, the Supervisor, Assistant Chief or Chief determine if a partial or full SWO should be issued.
12. A full demolition is deemed complete if the site is clean and has been backfilled and graded (unless a permit for a new building has been issued).
13. This may include clearing/paying fine for ECB and DOB violations.
14. An ACP5 form is used to certify that there is no asbestos work required or that the scope of work is less than the threshold for filing with DEP, see 15 RCNY § 1-22, 1-23 and 1-25.
15. An ACP7 form is used to notify DEP that abatement will take place, which is required if a project contains 25 or more linear feet, or more than 10 square feet of friable ACM, see 15 RCNY § 1-02
16. The ASB4 form is completed by a Registered Architect, Professional Engineer, licensed plumber or licensed oil burner installer—states that the type of work to be performed (e.g., erecting a flagpole, installing an outdoor pool, exterior scaffolding) would not impact asbestos containing material, see 15 RCNY § 1-23.

Proposed Full Demolition Operations¹



Abbreviations	
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ASB 4	Exemption from abatement form (DOB) ¹⁶
DOB BEST	DOB Building Enforcement Safety Team
DOB BIS	DOB Building Information System
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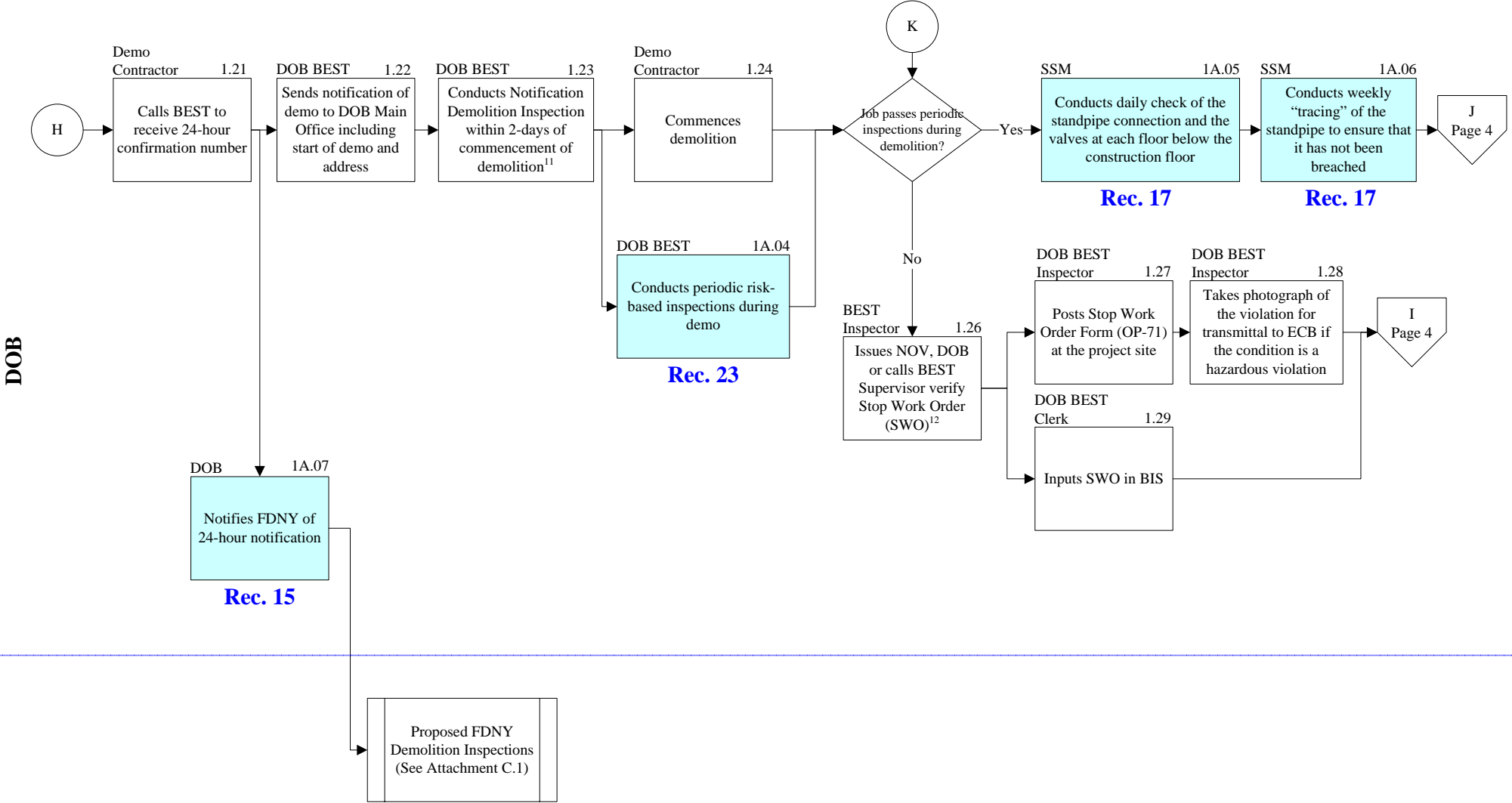
Proposed Full Demolition Operations



FDNY

Abbreviations	
ACM	Asbestos-Containing Material
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Proposed Full Demolition Operations

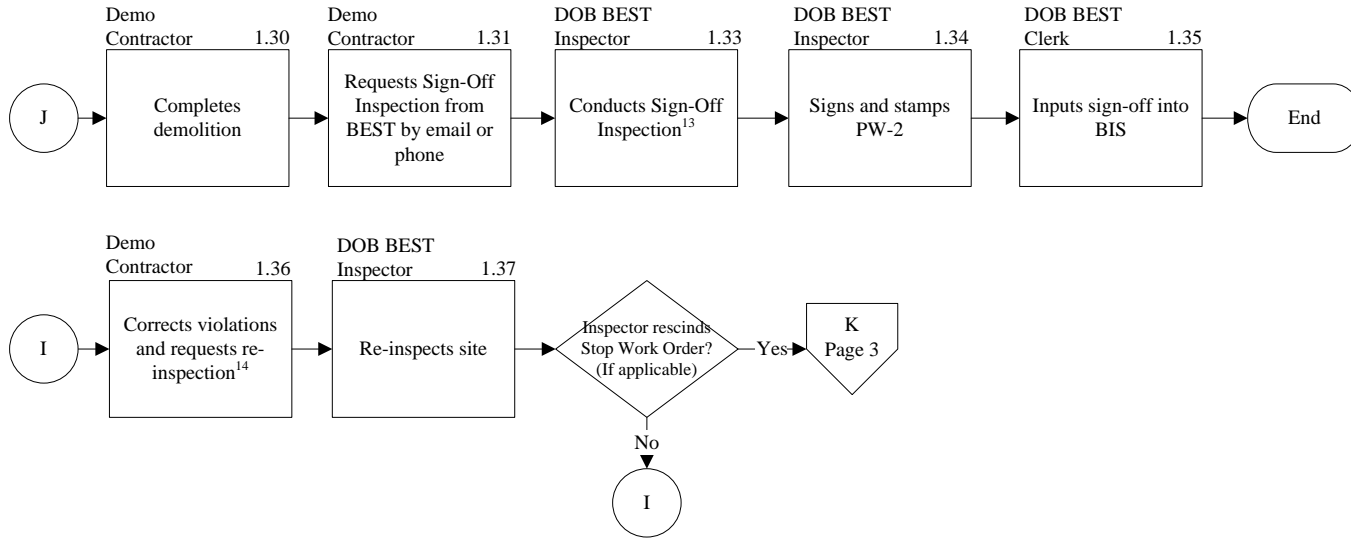


DOB

FDNY

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Proposed Full Demolition Operations



DOB

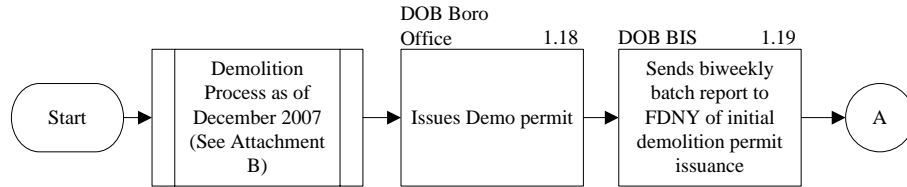
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DOB BEST – DOB Building Enforcement Safety Team
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Proposed Full Demolition Operations (notes)

1. This flow illustrates the proposed recommendations augmenting the existing full demolition process. Revisions to the process for full and partial demolition are part of the Phase 2 implementation of the new NYC Construction Codes. All recommendations will be accommodated into the analysis for Phase 2 implementation of the new construction codes.
2. Pre-DM inspection may include verifying the building, looking for the safety zone around the building, confirming vacancy, confirming that application forms are complete, etc. The inspector uses the B Form 2A which includes the following questions: Is the building vacant? Does the building have fire escapes or other exits used jointly with an abutting building? Will the removal of the fire escape or other exit affect the adjoining building? Has demolition commenced? Has an ECB violation been issued? Mechanical versus non-mechanical demolition: If the demolition is mechanical, BEST inspects mechanical demolition equipment (e.g. crane).
3. As of December 2007, only Partial DMs that were filed as alteration jobs were scanned. As of June 23, 2008, DOB is scanning full DMs (anything filed as a DM job type).
4. All Asbestos Investigators are certified by DEP.
5. BEST accepts and reviews the form, and the Borough Commissioner's Office approves it.
6. Internal spreadsheet includes location, application date, inspection date, etc.
7. Pre-DM inspection may include verifying the building, looking for the safety zone around the building, confirming vacancy, confirming that application forms are complete, etc. The inspector uses the B Form 2A which includes the following questions: Is the building vacant? Does the building have fire escapes or other exits used jointly with an abutting building? Will the removal of the fire escape or other exit affect the adjoining building? Has demolition commenced? Has an ECB violation been issued? Mechanical versus non-mechanical demolition: If the demolition is mechanical, BEST inspects mechanical demolition equipment (e.g. crane).
8. Indicates if pass in BIS.
9. BIS will only issue a permit when all checklist items are "filed" or "waived."
10. Information includes date PW-2 received and start date.
11. This pre-demolition inspection ensures existence of the building, that the stated height and number of floors was accurately reported to DOB, how the project affects the surrounding area, and that the building is vacant.
12. When the site, equipment or persons do not meet the Building Code, or Electrical Code requirements, the BEST inspector issues a violation. When a violation results in a stop work order, the Supervisor, Assistant Chief or Chief determine if a partial or full SWO should be issued.
13. This may include clearing/paying fine for ECB and DOB violations.
14. A full Demo is deemed complete if the site is clean and has been backfilled and graded (unless a permit for a new building has been issued).
15. An ACP5 form is used to certify that there is no asbestos work required or that the scope of work is less than the threshold for filing with DEP, see 15 RCNY § 1-22, 1-23 and 1-25.
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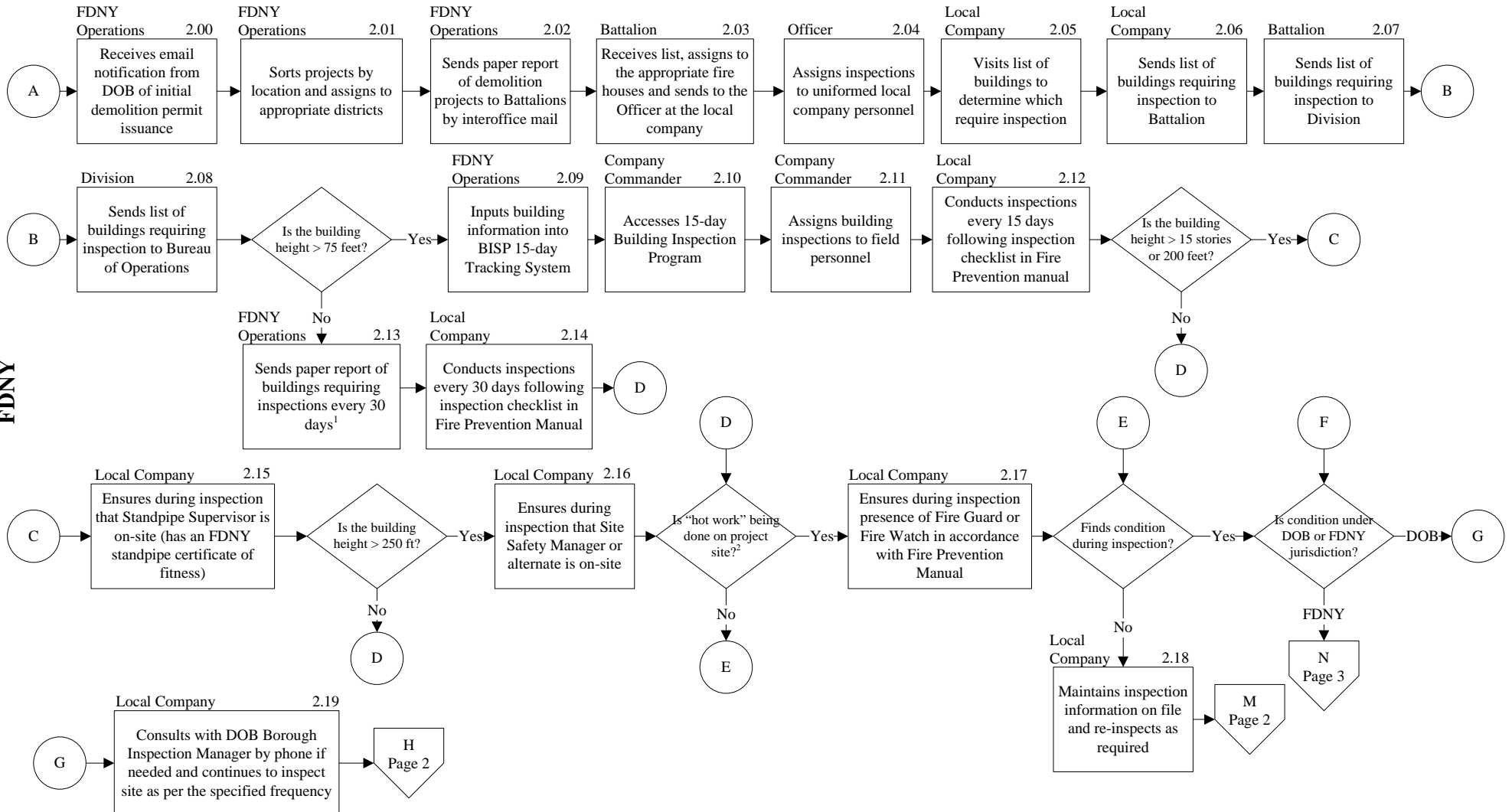
FDNY Demolition Inspection Operations as of December 2007

DOB

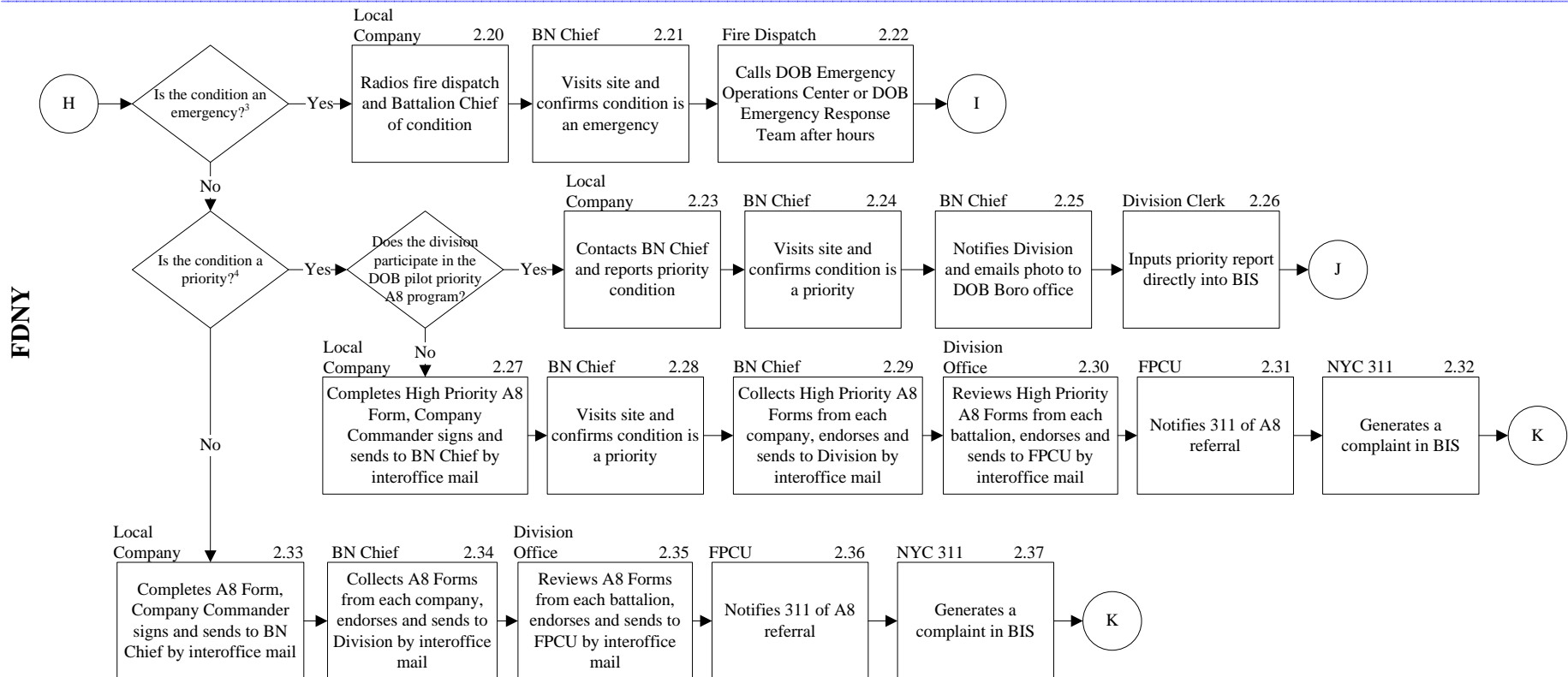
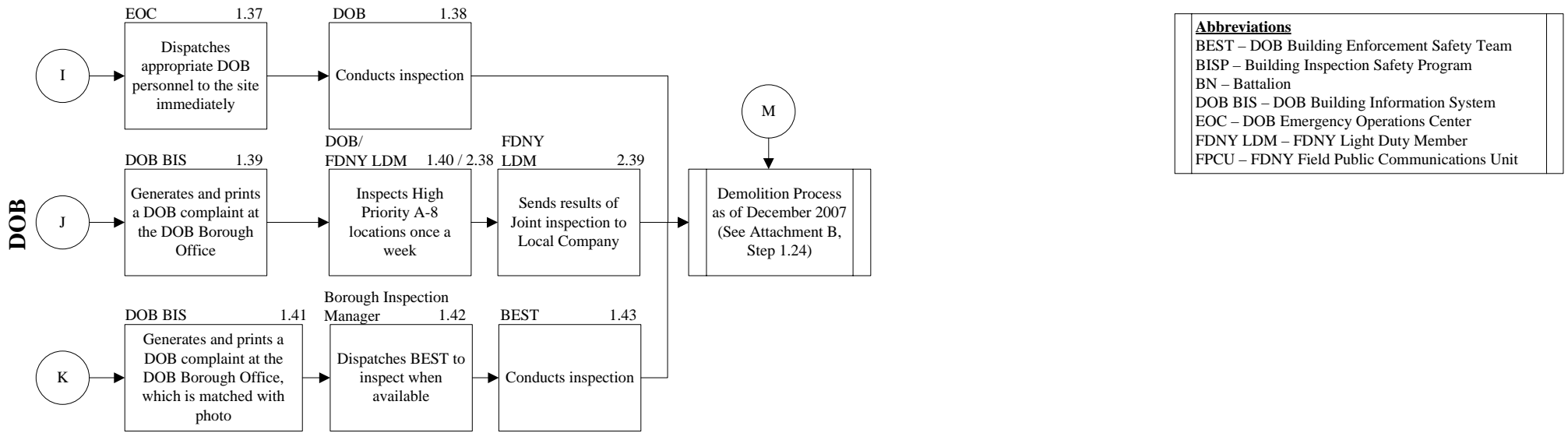


Abbreviations	
BEST	DOB Building Enforcement Safety Team
BISP	Building Inspection Safety Program
BN	Battalion
DOB BIS	DOB Building Information System
EOC	DOB Emergency Operations Center
FDNY LDM	FDNY Light Duty Member
FPCU	FDNY Field Public Communications Unit

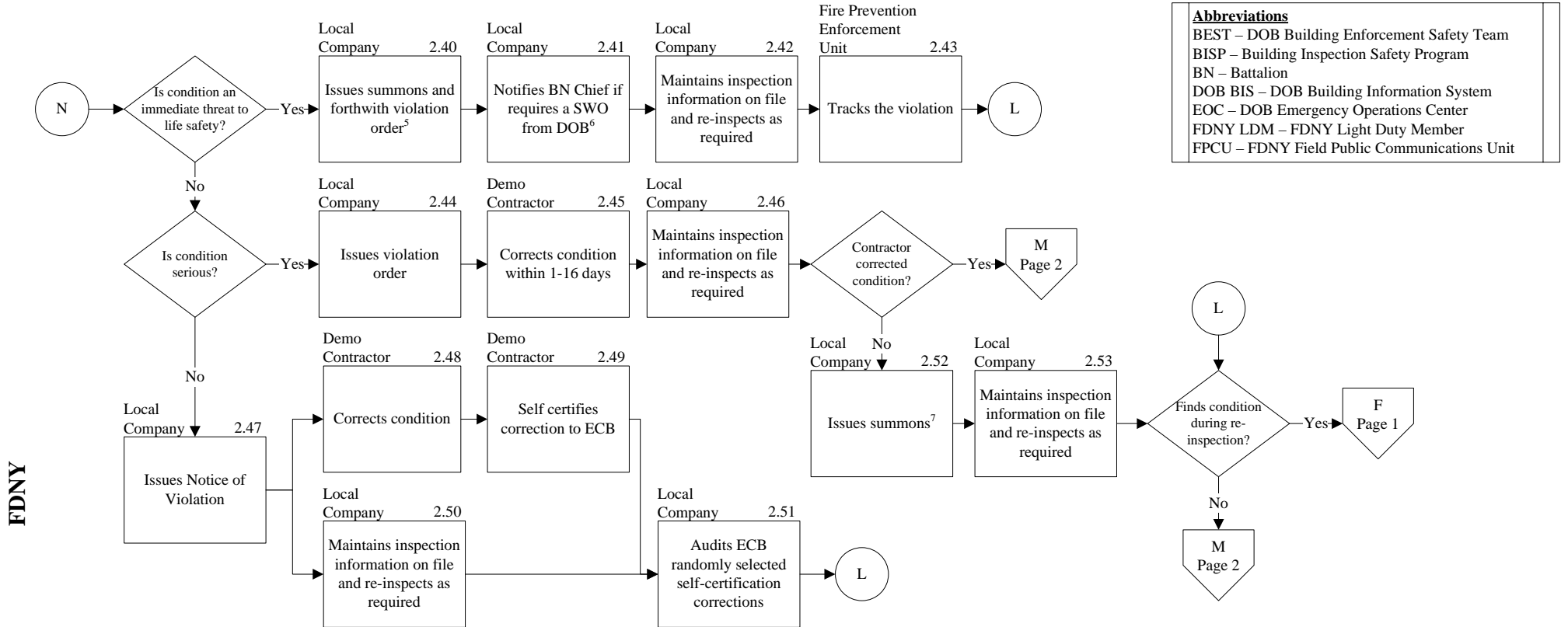
FDNY



FDNY Demolition Inspection Operations as of December 2007



FDNY Demolition Inspection Operations as of December 2007



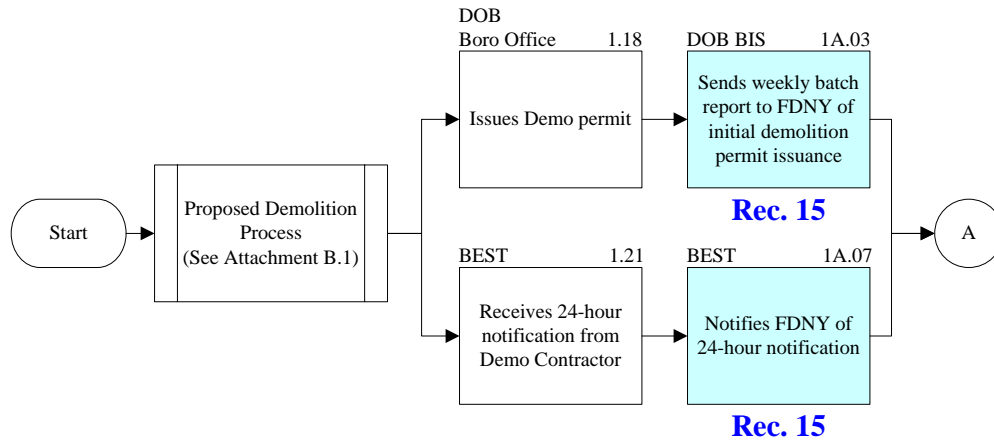
FDNY Demolition Inspection Operations as of December 2007

(notes)

1. Follows chain of command. Paper reports are sent to Division, which sends them to the appropriate Battalions, which sends them to the appropriate Local Company which conducts the inspection.
2. “Hot work” is work that requires torches.
3. An emergency is any condition that poses an immediate threat to life safety.
4. Priority items are those deemed by FDNY and DOB to be hazardous, but not emergencies, including no secondary means of egress, structural stability, defective chimney, no DOB permit for construction/demolition/alteration.
5. A forthwith violation order requires compliance within 24 hours.
6. FDNY cannot issue a Stop Work Order (SWO). If the condition requires work stoppage, FDNY contacts DOB, which comes to the site and issues a full or partial SWO.
7. In limited circumstances, if substantial progress has been made, the local company can grant one extension.

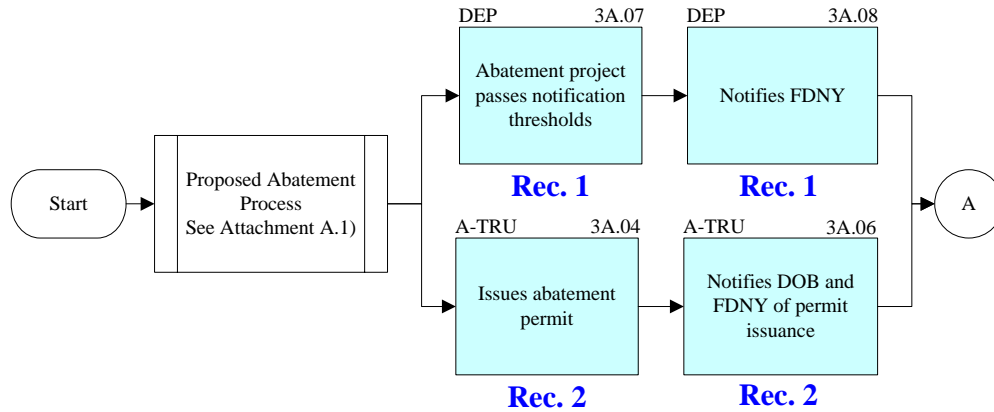
Proposed FDNY Demolition Inspection Operations

DOB

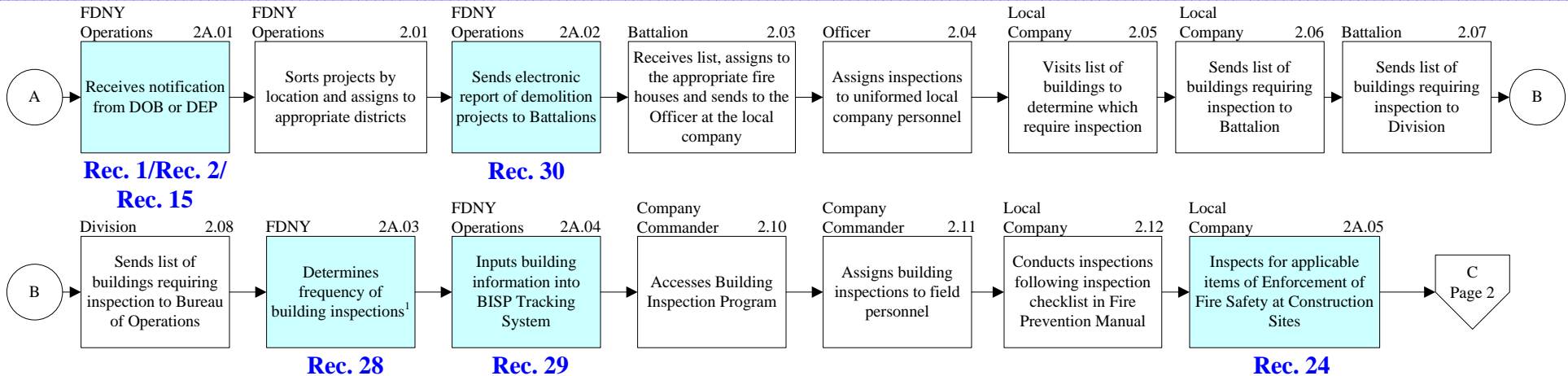


Abbreviations	
A-TRU	– DEP Asbestos Technical Review Unit
BEST	– DOB Building Enforcement Safety Team
BISP	– Building Inspection Safety Program
BN	– Battalion
DOB BIS	– DOB Building Information System
EOC	– DOB Emergency Operations Center
FDNY LDM	– FDNY Light Duty Member
FPCU	– FDNY Field Public Communications Unit

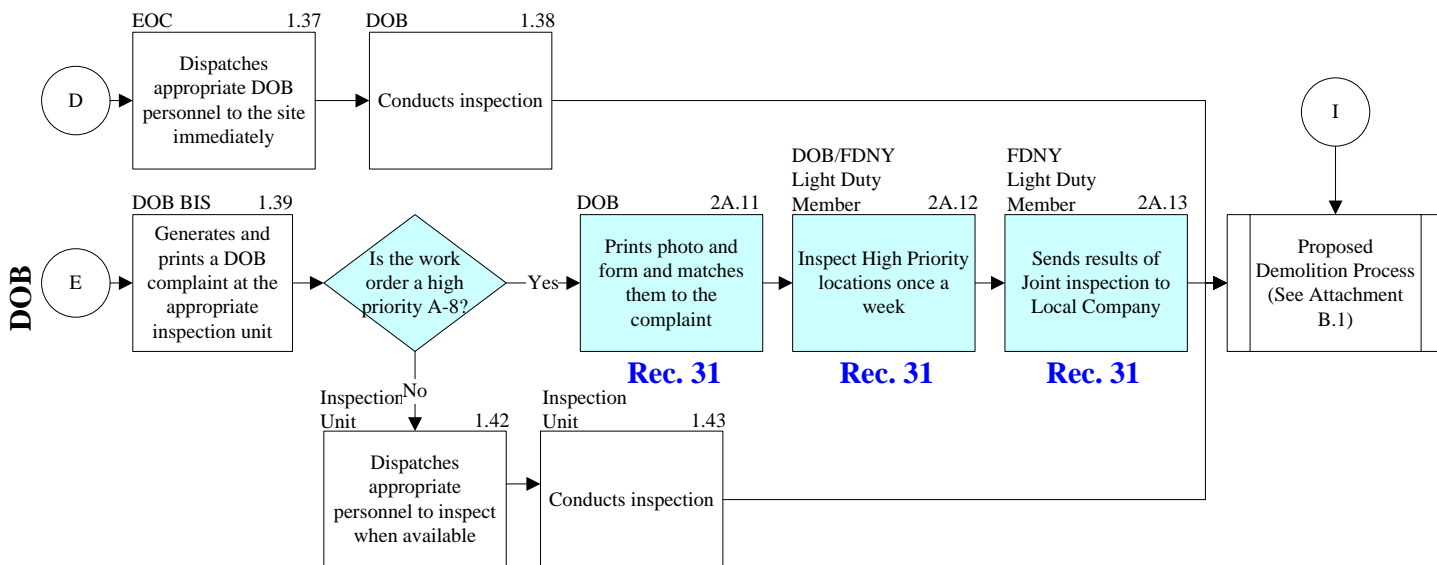
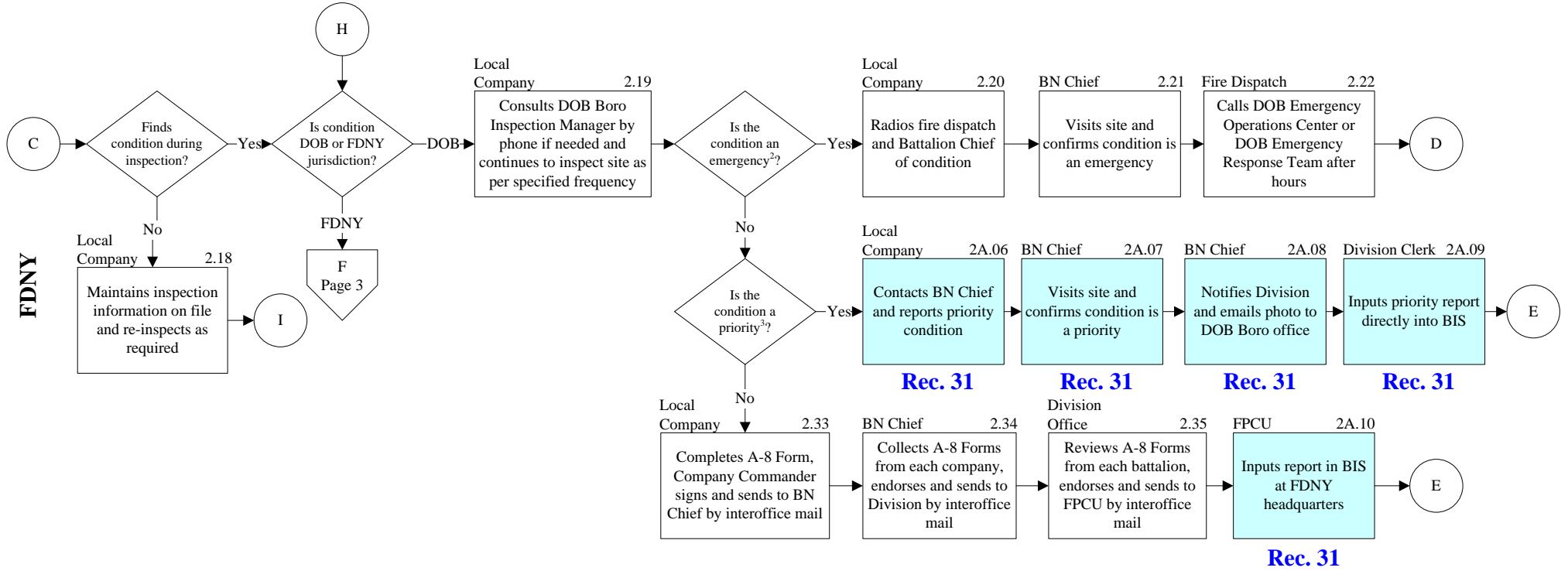
DEP



FDNY



Proposed FDNY Demolition Inspection Operations

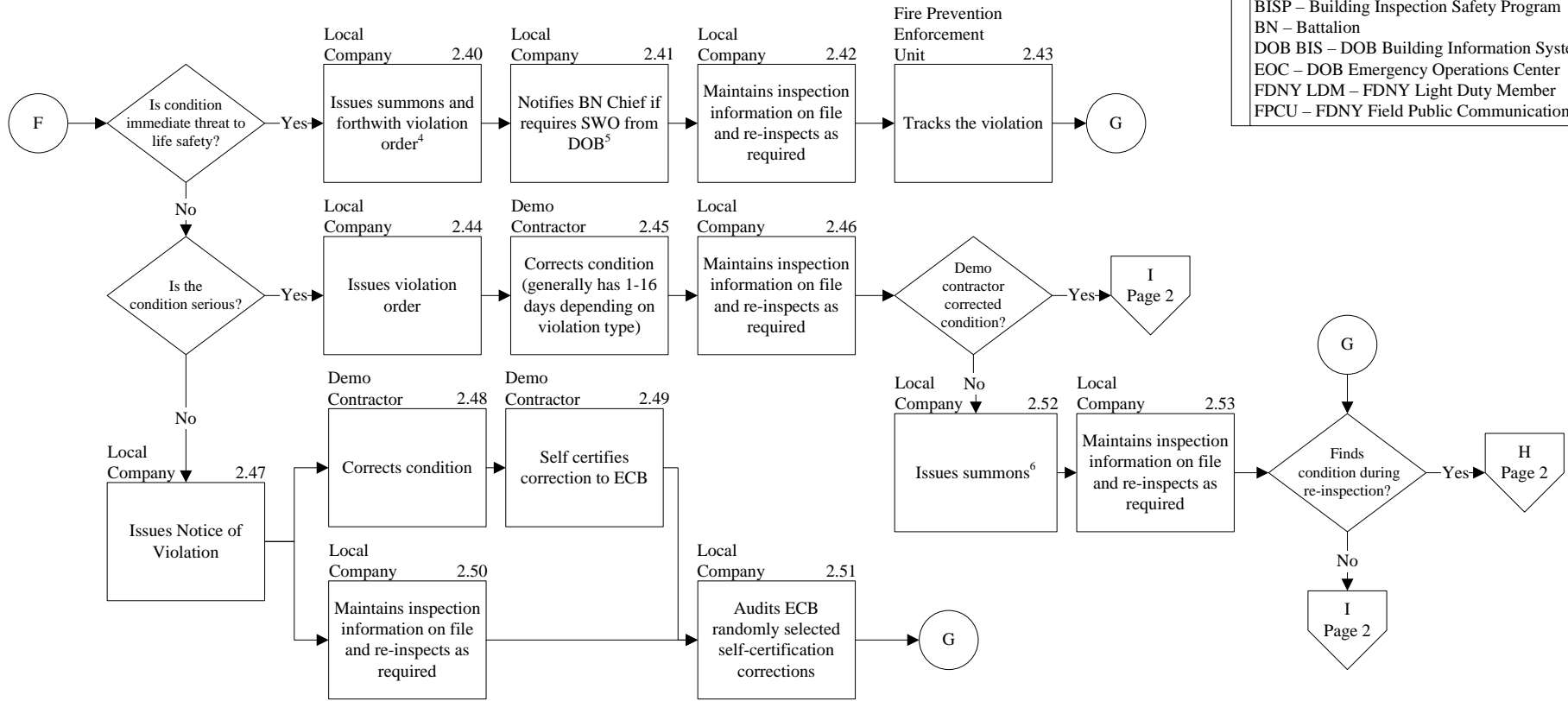


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FDNY



Proposed FDNY Demolition Inspection Operations

(notes)

1. Inspection frequency will be determined by FDNY based on an assessment of the risks associated with the construction, alteration and/or demolition work being conducted. Construction sites at which a building more than 35 feet in height or with a footprint of more than 7,500 square feet is being constructed or demolished will be inspected by FDNY at least once every 30 days when construction or demolition operations are in progress, unless FDNY's risk assessment of the specific construction site indicates a heightened or diminished risk warranting a different inspection frequency.
2. An emergency is any condition that poses an immediate threat to life safety.
3. Priority items are those deemed by FDNY and DOB to be hazardous, but not emergencies, including no secondary means of egress, structural stability, defective chimney, no DOB permit for construction/demolition/alteration.
4. Forthwith requires compliance within 24 hours.
5. FDNY cannot issue a Stop Work Order (SWO). If the condition requires work stoppage, FDNY contacts DOB, which comes to the site and issues a full or partial SWO.
6. In limited circumstances, if substantial progress has been made, the local company can grant one extension.