

2020 DDC Safety Summit

SAFETY ABOVE ALL!

Department of
Design and Construction



Lorraine Grillo, Commissioner

A white, dome-shaped hard hat is centered in the frame. It has a small protrusion at the top and two side attachments. The text 'NYC' is printed in blue, and 'DDC' is printed in orange below it.

**NYC
DDC**

GOALS



The Offices of QA & Construction Safety - Safety and Site Support Division is committed to excellence by:

- **Providing technical support to Infrastructure & Public Buildings Divisions**
- **Ensuring Quality and Safety standards are met**
- **Expediting Project delivery to sponsor agencies**

Collaboration by DDC Project Staff, contractors, CMs, and the Offices of QA & Construction Safety ensures a safe project site for employees and the public.



Offices of QA & Construction Safety

Who Are We?

FIELD SAFETY AUDITING



QUALITY ASSURANCE



UPDATED REGULATIONS

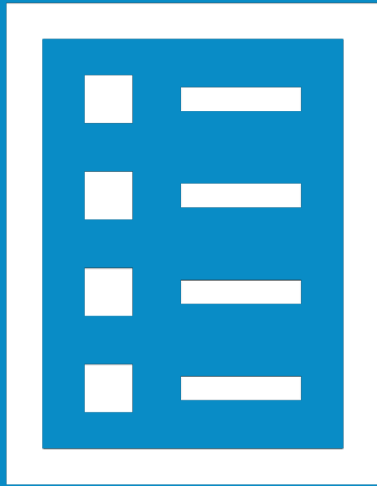


ACCIDENT/INCIDENT INVESTIGATION



SAFETY CODE COMPLIANCE

Safety Code Compliance



<https://ddcanywhere.nyc>

Site Safety Plan
APP

Safety
Questionnaire

**Site Safety Plan
APP**



Important Dates



**Site Safety Plan Prepared by
Contractor**



**Site Safety Plan Reviewed by
Project Staff**



**Site Safety Plan Reviewed by
Safety Code Compliance**



**Acceptance Determined by
Safety Code Compliance**



As of January 2019, Safety Programs are no longer required to be submitted.



The Site Safety Application (SSP APP) was launched on August 16, 2019.

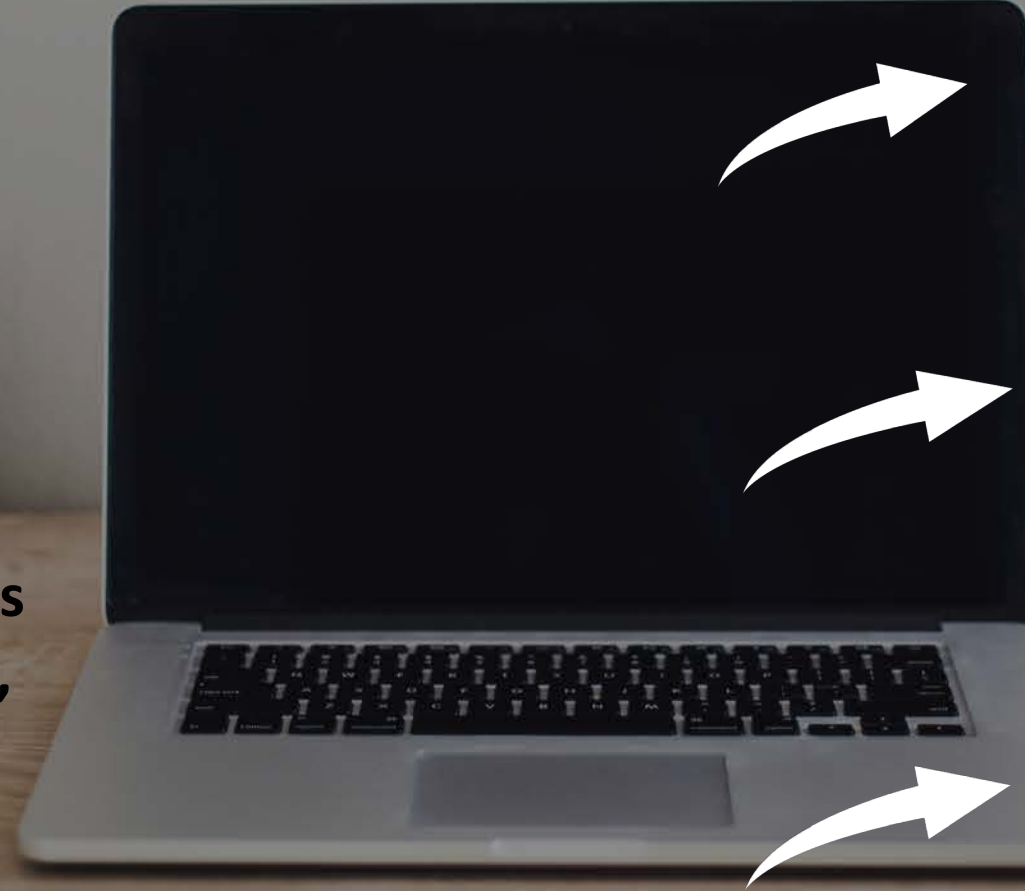


As of August 16, 2019, Contractor Site Safety Plan submittal shall be through the SSP APP.

Site Safety Plan



SSP APP training
provided to contractors
on September 23 & 29,
2019.



Site Safety Plans must be
submitted within 30 days of
Award Date.

Well defined Work Scope
must be provided.

Templates are downloaded
and completed for each
construction activity,
including JHA – then
uploaded.

Required attachments must
be provided i.e. MPT plans,
protective system drawings.



Site Safety Plan is Acceptable

Site Safety Plan is Unacceptable

**Site Safety Plan is
Conditionally Acceptable**

Conditionally acceptable section must be submitted 30 days prior to the start of construction activity for review and acceptance.

If the section is not provided within the specified timeframe:

The SSP status changes from Conditionally Acceptable to Unacceptable.

A Stop Work Order will be issued when construction activity is witnessed during field audit.

Safety Questionnaire

**Determine contractors safety performance
for the previous three years:**

EMR Rates



**Incident
Rates**



**OSHA 300 &
300A Logs**



**OSHA
Violations**



**OSHA
Notifications**



**DDC
Accidents**





"COMMITTED TO
HEALTH & SAFETY"

**SAFETY
FIRST**

CONSTRUCTION SAFETY PRE-CONSTRUCTION PACKAGE

- Contract Safety Requirements
- DDC Accident/Incident Notification & Response Procedure
- Site Safety Plan Submittal Process
- Safety Advisories



Quality Assurance Pre-Construction Package

- Vendor Approval Data Sheet
- Data Sheets for Material Testing (Concrete, Asphalt, etc.)
- Substantial Completion Sign-off Form

AUDITS



Identify Hazards/Deviations



Document, Inform, and Publish
Audit Reports

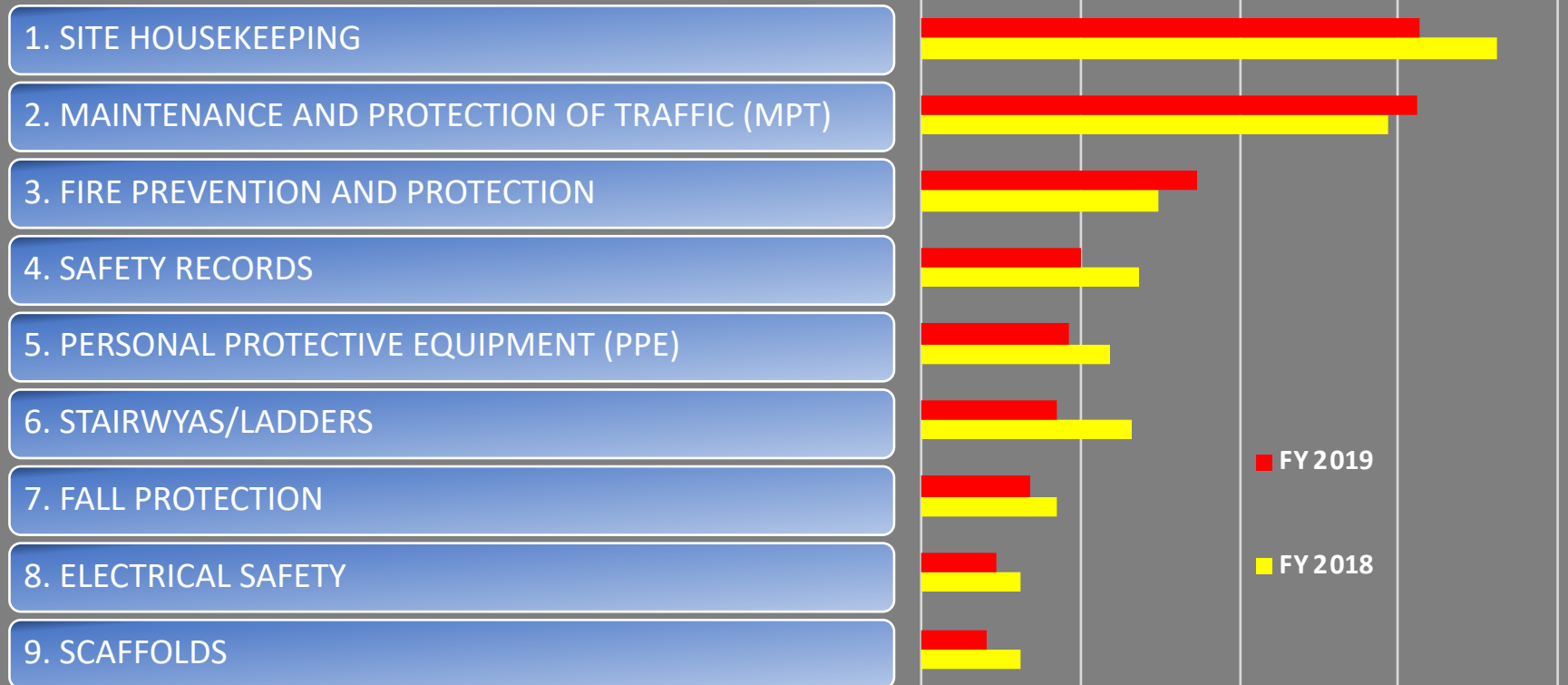


Issuance of Stop Work Order
(SWO)



Ensure Corrective Action of
Deviations

TOP SAFETY DEVIATIONS CATEGORIES FOR FY 2018 & 2019



Eliminating Deviations

- 
- Provide safety oversight at construction sites
 - Ensure qualified Competent Person is assigned
 - Perform safety inspections
 - Conduct Daily Job Briefings on applicable topics
 - Conduct Weekly Safety Meetings
 - Perform a JHA assessment – identifying and documenting hazards and control methods



30-30 Thomson Avenue
Long Island City, New York 11101
Tel. 718 391-2311; 1284
Fax. 718 391-2885

AUDIT DATE: _____

AUDIT TIME: _____ AM/PM

Page ____ of ____

FIELD EXIT CONFERENCE REPORT

Audit Type: Safety Field _____ Safety Record Review _____ Pre-Construction Meeting _____ Special _____

| | |
|--|------------------------------|
| Project ID: | Location(s): |
| Exit Conference Held: Y/N (Circle one) | Construction Safety Auditor: |

The above facility was visited today, and the following is brought to your attention:
RISK LEVEL - LOW (L), MEDIUM (M), HIGH (H)

[illegible]

"It is intended that the final on-site inspection report will reflect the deficiencies noted on this Field Exit Conference report. However, in the preparation of the final report, a thorough review of checklist and specifications may uncover additional deficiencies or indicate that a deficiency noted in this preliminary report is inappropriate.

Received by: RE/EIC/PM/Inspector Name (Print) _____

RE/EIC/PM/Inspector Title (Print) _____

RE/EIC/PM/Inspector Signature _____ Date _____

DDC Construction Safety Auditor Signature _____ Date _____

*Copy#1 (DDC's Copy)

*Copy#2 (Resident Engineer Copy)

^Copy#3 (File Copy)

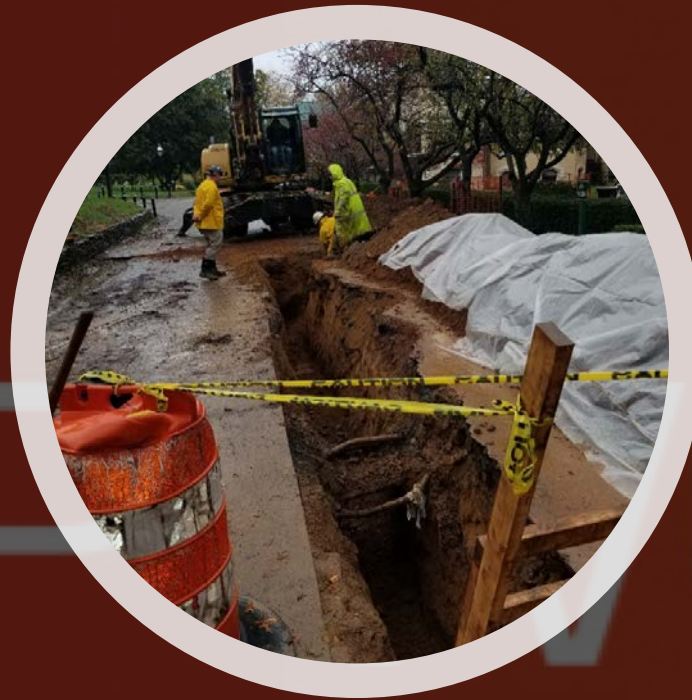
Rev. Date 11/2019





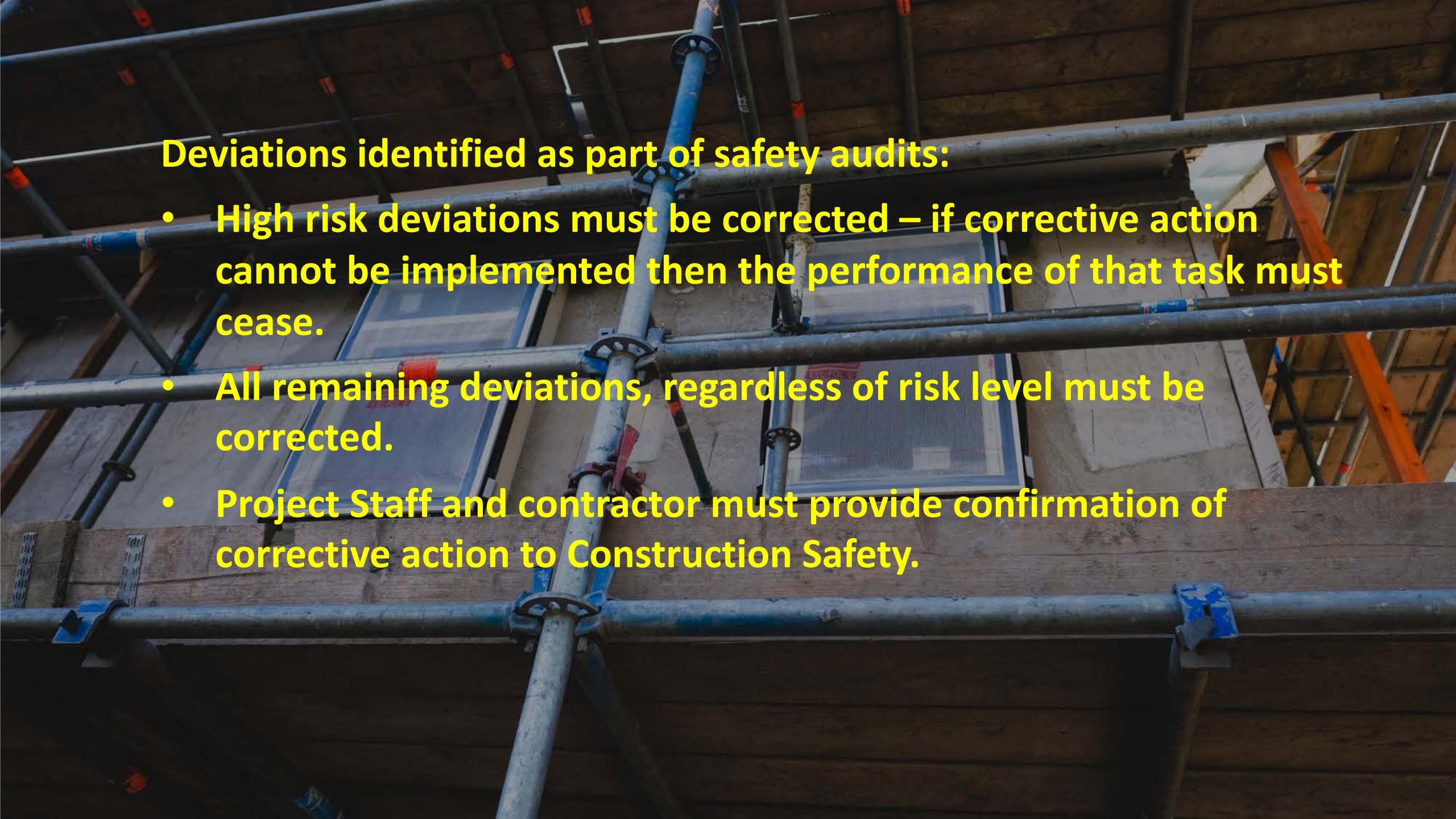






Examples of when a Stop Work Order (SWO) may be issued:

- **Working in a confined space without a program in place**
- **Working in a trench without an approved protective system, when required**
- **Working in an area or at a height without an acceptable fall protective system in place**



Deviations identified as part of safety audits:

- High risk deviations must be corrected – if corrective action cannot be implemented then the performance of that task must cease.
- All remaining deviations, regardless of risk level must be corrected.
- Project Staff and contractor must provide confirmation of corrective action to Construction Safety.

PUBLIC SAFETY



Ensure construction activity does not adversely affect the health and safety of the public.



Provide un-obstructed and safe walkway for ALL pedestrians.



Ensure work areas, equipment, and debris are secured by appropriate means.



Provide trained employees at hazardous locations to ensure public safety.



Ensure open holes, excavations, and trenches are secured to prevent unauthorized access by steel plating or covered.



Ensure work site is maintained and kept free of debris – site housekeeping.



ACCIDENT/INCIDENT INVESTIGATION



**Response &
Investigation**

Root Cause

Lessons Learned

**Contractors
Responsibilities**

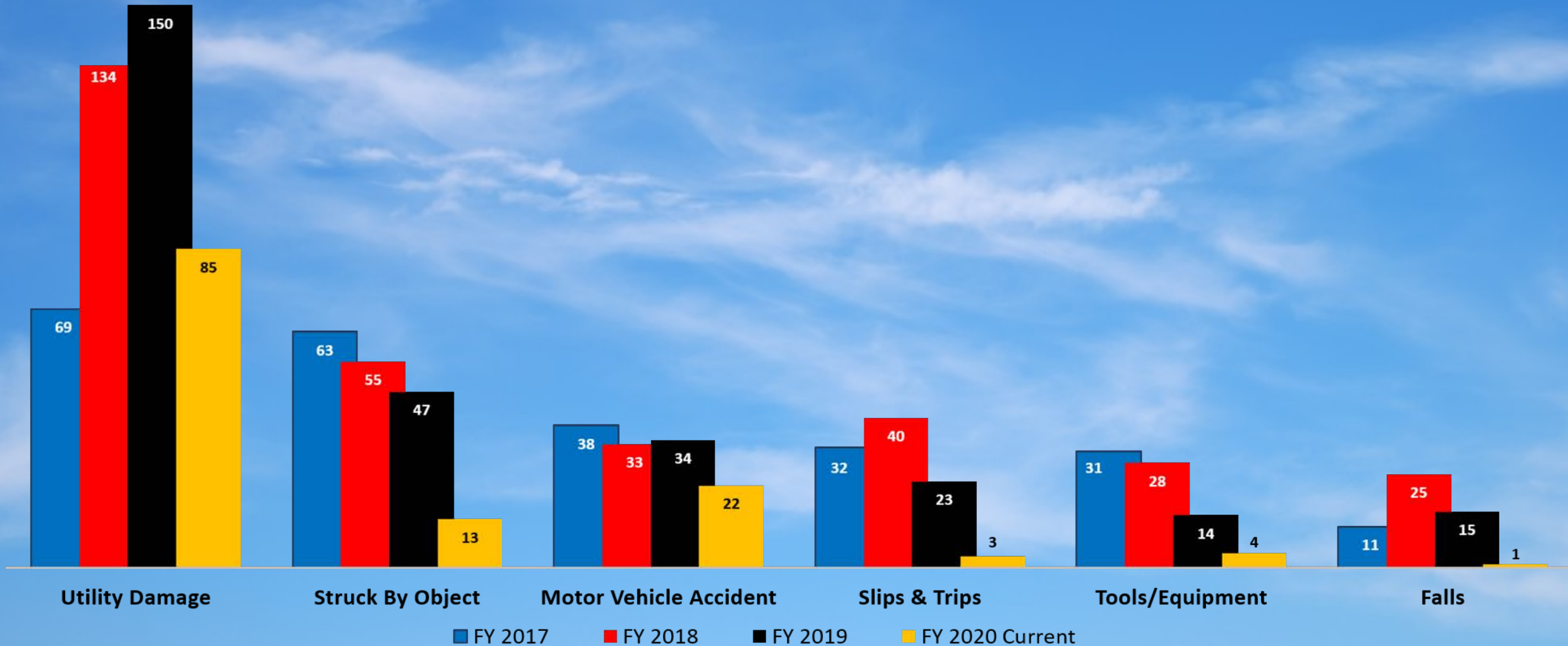


The definition of incident and accident, at DDC is as follows:

- **Incident** – An unplanned work related event that results in personal injury requiring first aid or property damage.
- **Accident** – An unplanned work related event that results in personal injury that involves medical treatment beyond first aid.

ACCIDENTS AND INCIDENTS

LEADING CAUSES





Preventive Measures - MVAs

- Ensure approved MPT is set-up and addresses vehicular and pedestrian patterns and safety
- Provide flaggers at entry/exit points of work zone
- Perform Circle-of-Safety prior to entering vehicle
- Provide spotter to guide/direct vehicle operator
- Ensure that operators view is not obstructed

Preventive Measures - Utility Damages



- Notify 811 – NYC One Call
- Wait the required time
- Positive response from affected utilities
- Respect the marks – NO powered or mechanized equipment within the Tolerance Zone
- Conduct a walk through prior to excavation activities
- Provide a spotter where overhead utilities are located
- Support and protect exposed utilities within the trench

HAND AND POWER TOOLS

Statistics compiled by the Bureau of Labor Statistics indicate that approximately 10% of accidents to construction workers involve hand or power tools. Recently, a contractor's worker was seriously injured on an DDC project while cutting a 36" trunk main pipe with a handheld power cutting machine. Workers must receive general safety awareness training to recognize and avoid unsafe conditions.

Warning! STIHL Cut-Off Machines: Never Cut Wood of Any Type. Never Use Carbide-Tipped, Wood Cutting or Circular Saw Blades on Cut-Off Machines. They Can Cause Severe Personal Injury or Death from Reactive Forces, Blade Contact or Thrown Tips.

Warning! Husqvarna Hand-Held Power Cutter Machines: Kickbacks are sudden and can be very violent. The power cutter can be thrown up and back towards the user in a rotating motion causing serious or even fatal injury. It is vital to understand what causes kickback and how to avoid it before using the machine. Check that the guard over the cutting blade is not cracked or damaged in any other way. Replace when damaged. Check that the cutting blade is fitted correctly and does not show signs of damage. A damaged cutting blade can cause personal injury. Never use a cutting blade for any other materials than what it was intended for. Be alert for potential movement of the work piece. If the work piece is not properly supported and shifts as you cut, it might pinch the blade and cause a kick back.

Such accidents are easily preventable by following safe tool work practices. The Occupational Safety & Health Administration (OSHA) has rules for safe tool use. These rules can be found at 29 CFR Part 1926 Subpart I.

Below are general safety recommendations:

1. Are tools in good condition? Look for:

- Damage or defects, such as cracked or split handles or wrenches with jaws that are sprung
- Guards in place. Guards that are installed on tools must be kept in operating condition and are not to be removed or disabled;
- Power cords that are not frayed, taped or damaged;
- Compressed air hoses have the correct size fittings and are not damaged or defective;
- On / off switches are operable and not taped or held down;
- Blades or bits that are sharp and without defect.

2. Are tools being used for the purposes for which they are intended? Look for:

- Screw drivers used as chisels or pry bars;
- Tools being lifted or carried by the power cord;
- Incorrect saws, size blades or bits being used;
- Compressed air hoses used to "blow-off" dust from worker's clothing;
- Power tools not connected to a Ground Fault Circuit Interrupter (GFCI).

3. Are contractor's workers provided and using personal protective equipment (PPE)? Look for:

- PPE that meets American National Standards Institute (ANSI) standards (they will have a tag or stamp indicating they meet ANSI Standards);
- Use of goggles and face shields when there are flying particles or splashing liquids;
- Use of respirators if there are harmful dusts, fumes, mists, vapors, or gases;
- Use of hearing protection when operating power tools, especially pneumatic tools like jackhammers.

4. OSHA rules require that training be provided for workers using certain types of tools, such as:

- Powder actuated tools (e.g.; Hilti guns);
- Welding and cutting equipment.

5. A fully developed Job Hazard Analysis (JHA), which:

- Identifies the hazards and control methods associated with a given task and employees must have been trained on the JHA to recognize and avoid unsafe conditions.

THINK SAFETY!

Safety Precautions In the Event of Damage to a Natural Gas Facility

The safety of DDC project personnel, contractors, and the public is paramount at all DDC construction projects. Damage to a natural gas facility can result in a leak, ignition, fire, or explosion, and the consequences to life and property can be devastating. Below are actions that should be taken by Project Staff when damage to a natural gas facility occurs:

- Immediately cease excavation activity.
- If the damage results in a release of natural gas, take steps to evacuate workers from the area and eliminate source(s) of ignition.
- **DO NOT** allow anyone to attempt a repair or stop the leak.
- **DO NOT** cover the damaged natural gas facility with dirt to try to stop the leak.
- Move to a safe distance and Call 911.
- Notify the affected natural gas utility company.
- Call 811 (New York Dig Safely).
- Secure the area to prevent access.
- If there is a natural gas fire - **DO NOT** attempt to extinguish.
- If an evacuation of a residential premise is warranted it should be performed by first responders (FDNY, Utility Personnel, etc.). – **DO NOT RING DOOR BELLS**, they are a source of ignition.
- Implement the DDC Construction Accident Incident Notification and Response Procedure.

These steps should be followed even if there is no release of natural gas or apparent damage. **DO NOT** assume that damage occurs only at the point of contact and be aware that natural gas can migrate underground creating a potential hazard elsewhere.



Required under the DDC Contract Safety Requirements the contractor shall:



Provide immediate notification of project-related accidents and incidents.



Preserve scene/tools/equipment involved in accident or incident.

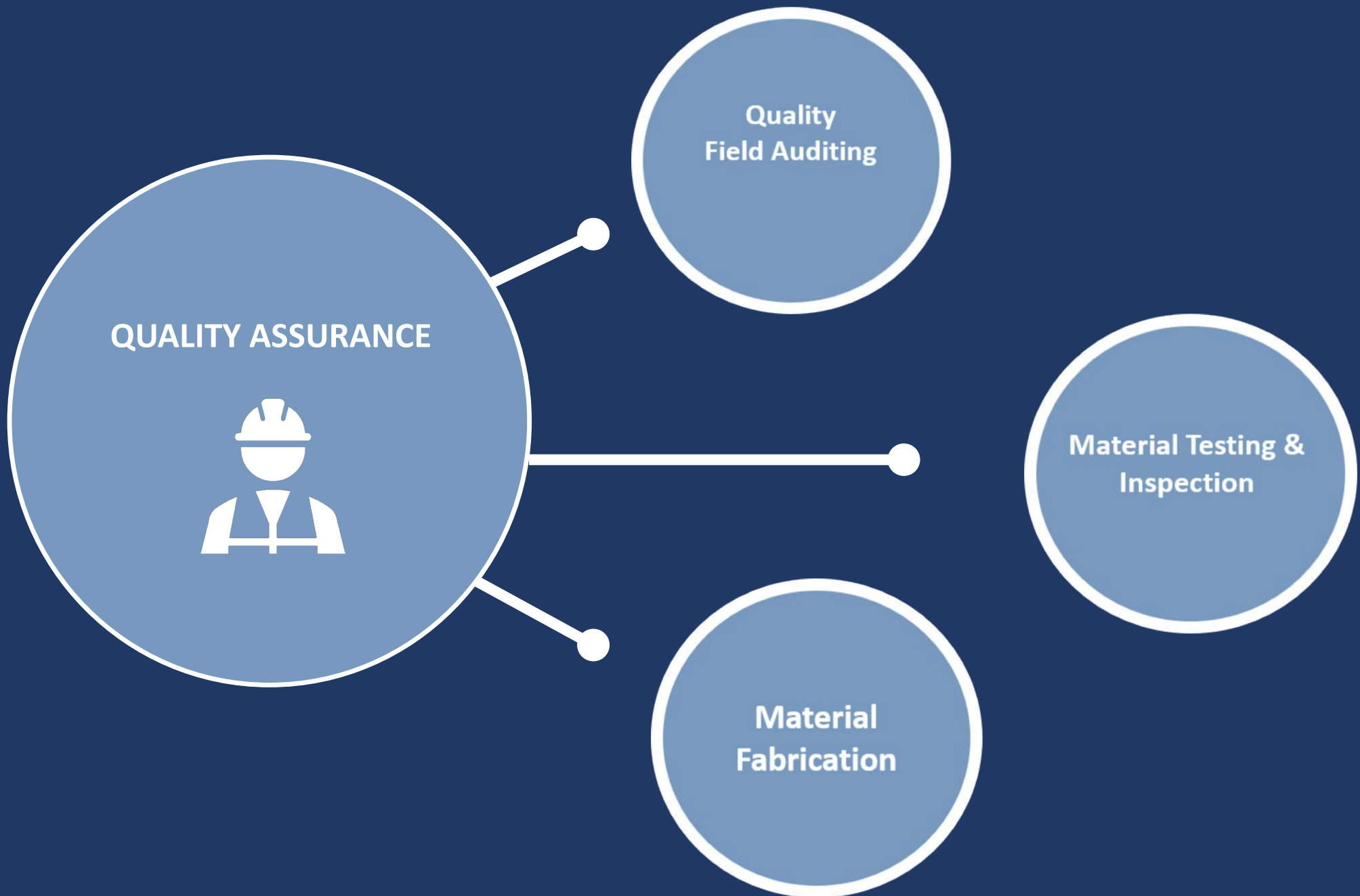


Conduct accident and incident investigations and document findings for DDC review.



Use accident and incident investigation findings as “Lessons Learned.”







**Attend construction
meetings**



**Perform routine quality
audits/inspections of
Infrastructure & Public Buildings
projects**




Conduct special audits



**Conduct Substantial
Completion inspections –
Infrastructure projects**



**Identify deviations and ensure
corrective action implementation
by Project Staff**

- 
- A photograph of a concrete cylinder specimen being tested in a compression machine. The specimen is positioned between two metal platens. The top platen is applying downward force, causing the concrete to crack and crush. Debris from the failed specimen is visible on the base. The machine has a teal-colored frame and large, dark, ribbed vertical supports on either side. The background is slightly out of focus, showing a laboratory setting.
- Annual and periodic audits of material testing labs & plants
 - Inspector qualification program: concrete, asphalt, welding
 - Vendor inspection, qualification and approval
 - Review of concrete and asphalt mix designs
 - Sampling and testing services

Materials - field and plant inspection



Inspection services – review of materials and fabrication tests



Material - acceptance and shipping release

REGULATIONS UPDATES



Local Law 196

Code Rule 753
Excavator Training

Local Law 196

IMPORTANT DATES

- **BY DECEMBER 1, 2019** - All construction site workers must obtain:
 - Limited SST Card or
 - SST CardIn addition, Site Safety Manager, Site Safety Coordinator, Concrete Safety Manager, Construction Superintendent, and Competent Person must possess Supervisor Site Safety Training Card.
- **BY SEPTEMBER 1, 2020** – Workers not permitted on site unless they have minimum 40 hrs. training.
- **BY OCTOBER 14, 2019** – All GCs must post signs at construction sites where SST is required.



DEFINITIONS

- **Limited SST Card:**
 - OSHA 30 hrs.
 - OSHA 10 + 20 hrs. of SST credits
- **SST Card:**
 - OSHA 10 + 30 - 45 hrs. of SST credits
 - OSHA 30 + 10 - 25 hrs. of SST credits
 - 100 hrs. training program
- **SST Supervisor Card:**
 - OSHA 30 + 32 hrs. SST credits



New York State 16 NYCRR 753 Protection of Underground Facilities

- NYS Code Rule 753 was amended to require any municipality or operator, that engages in excavation work, to mandate its excavator operators to complete a **training and education program** offered by their local New York 811 - One Call Notification Center (law effective May 4, 2019).
- Any contractor engaged in excavation related work on DDC Projects must comply with the law. Contractors must ensure excavator operators are properly trained, and retain documentation to demonstrate completion of training.
- Refresher training and education shall be required at least every five years.
- Completing the New York 811 Excavator Training and Education Program will constitute compliance with the law (became available December 1, 2018).

Closing Remarks and Questions

