Submittal # 0141100-002-Safety Requirements - Contractors Safety Plan

The undersigned hereby certifies that this submittal for the National Air and Space Museum, in Washington D.C., has been checked prior to transmittal to the Architect and it complies in all respects, except as noted, with the requirements of the Contract Documents and physical space limitation on the Project Site.

Clark/Smoot/Consigli, A Joint Venture

Signed By: Regan Seydler Date: Digitally signed by Regan Seydler DN: C=US, E=rseydler@consigli.com, CN=Regan Seydler Date: 2018.11.15 15:01:44-05'00'

Name & Title: Regan Seydler - Project Engineer

National Air and Space Museum
Revitalization Project

Safety Plan

PROJECT – SPECIFIC SAFETY PLAN

SAFETY AND HEALTH POLICY STATEMENT

The project team for **National Air & Space Museum** believes that an effective safety and health program is based on a sincere desire to eliminate personal injuries, occupational illnesses, damage to equipment and property, as well as to protect the general public. Management and supervision are charged with the responsibility of preventing the occurrence of incidents or conditions that can lead to occupational injuries or illnesses. The ultimate success of a safety and health program depends upon the cooperation of each individual employee. It is management's responsibility to provide effective training and education that will result in a safe place to work, and to ensure that safety and health rules and procedures are adequate and enforced. No employee or subcontractor shall be required to work in an unsafe manner or under unsafe conditions, unless it is to correct an unsafe condition and then, only after all reasonable safety precautions have been taken to minimize the potential injury exposure.

The project team for National Air & Space Museum recognizes that safety and health are integral and essential parts of our operations. Our policy is to accomplish work in a safe manner consistent with good work practices. Management at every level is charged with the task of translating this policy into positive actions.

Our Safety and Health Philosophy is based on the following principles:

- Employees are an invaluable resource to the company and their safety and well-being are essential to its continued success.
- Incidents are manageable, and the occurrence of an incident means that we have not effectively managed our people and resources.
- Communication and Trust play a significant role in developing a safe and healthy working environment
- ALL Employees play a role in their own safety and the safety of those working around them. Management will be responsive to the expressed safety concerns of employees.
- SAFETY is our core value
- SAFETY is our culture.

Purpose

Our TEAM is committed to providing a safe and healthy workplace for its employees. The Clark Construction Group, LLC Safety and Health Manual, adopted by the Clark/Smoot/Consigli project team, contains policies, procedures, and programs designed to ensure the safety of our workforce, construction personnel, and the general public. We consider the prevention of incidents to be an integral part of our operation, and to these ends, we have established a

supplemental site-specific health and safety plan to assure the continued safety of all project employees.

This plan is designed to:

- Identify and evaluate jobsite hazards.
- Establish means and methods to prevent exposure to unsafe conditions.
- Develop a system to communicate with our employees concerning safety matters and to encourage feedback.
- Establish training and retraining programs for employees.
- Establish a culture on the jobsite where safety is recognized as the top priority

Description of Job

Clark/Smoot/Consigli (CSC) will revitalize the 620,000 square foot National Air and Space Museum. The renovation will extend over three city blocks consisting of a full renovation including selective structure demo and abatement, intricate interior finishes, and upgrades to the museum's hardscape. There will be a complete removal and replacement of the building's 150,000 sq. ft. Colonial Rose façade and 97,000 sq. ft. of curtainwall and skylight systems. Further, mechanical and electrical systems are intertwined and connected to multiple galleries, zones, and areas. This project requires a full demolition and replacement of the entire MEP system. The team will perform phased work over a six-year period to keep major portions of the facility open to the public always.

Site Specific Risks:

1. **Pedestrian Control**
    a. DDOT approved Traffic Control Plan
    b. Proper signage around project diverting pedestrians appropriately
    c. All work areas will be secured from the public by chain-link fencing at entire exterior perimeter, and by a 2-hour fire rated partition as interior barrier.
    d. DC Certified Flaggers will be utilized at project vehicle entrances as needed for commercial motor vehicles or construction equipment coming in and out of the project.
    e. Tower Cranes shall be used to limit interaction of moving equipment and vehicles, such as forklifts and trucks, with public during material loading and staging.
        i. Crane loads shall not pass over pedestrians at any time
            1. Crane swing paths shall be preplanned to avoid swinging over occupied areas of the museum
            2. Trained crane signalmen will observe paths of all loads and assure swing path is clear of pedestrian.

2. **Intricate Design and Scope of work**
    a. Preconstruction Safe Start meetings for all subcontractors will be critical
        i. Pre plan all phases of construction
            1. Review scope, contracts and plans to identify problems, trends and potential lack of training EARLY and communicate with subcontractors.
                a. Project/Task Specific Job Hazard Analysis
                b. Subcontractor Weekly Safety Meetings
                c. Daily Safe Plan of Action Meetings
        ii. Set Expectations
    b. Communication (Co-ordination meetings, safety committee meetings, etc).
        i. Identify problems, trends and potential lack of training EARLY and communicate with subcontractors

3. **Asbestos and Lead Abatement**
    a. A contractor licensed in the District of Columbia shall perform all asbestos and lead work
    b. Task specific abatement plans shall be submitted to Clark/Smoot/Consigli for review prior to start of abatement activities.
    c. Third party industrial hygienist shall oversee activities and conduct periodic air sampling and final clearance notices upon completion of work and provide documentation to Clark/Smoot Consigli.
    d. Offsite transport will only be done by approved hazardous waste haulers and containers labeled in accordance with DOT requirements
    e. Manifests shall be obtained and retained for all shipments.

4. **PCBs and Mercury Containing Item Removal**
    a. All work will be done by properly trained subcontractors
    b. Removal and Disposal plans shall be submitted to Clark/Smoot/Consigli for review prior to start of activities
    c. Offsite transport will only be done by approved hazardous waste haulers and containers labeled in accordance with DOT requirements.
    d. Materials shall be taken to universal waste destination centers.
    e. Manifests shall be obtained and retained for all shipments.

5. **Lead Containing Materials**
    a. Demo/Abatement contractor will be a certified contractor for lead abatement/handling
        i. Will submit a Safety Project Plan that includes detailed engineering controls, a respiratory protection program, personal protective equipment, etc., for the work.
        ii. Will ensure all workers receive proper training and certifications
        iii. Responsible for proper disposal of all LCM

iv. Will submit a full LCM removal plan

b. CSC will review all submitted plans prior to mobilizing

6. **Scaffolds/Hanging Scaffolding/Gantry System**
    a. Scaffolding subcontractor will be required to provide Professionally Engineered (stamped) design and installation plan to be reviewed by CSC for these atypical systems.
    b. Scaffolding Subcontractor will provide a detailed prevention plan to address the hazard of falling objects.
    c. The Window Install Subcontractor will provide rigging plan and safe installation sequence.
    d. Third Party Inspector will inspect the scaffolding and gantry system before use.

7. **Mast Climbers**
    a. Pedestrian Protection will be required during operations involving the mast climbers
    b. A detailed access plan for getting on and off the mast climbers safely will be required.
    c. The mast climbers will be erected per the manufacturer's requirements and will be inspected by a third party prior to use.

8. **Silica Exposure/Dust Control**
    a. All subcontractors will be required to submit a Silica Control Plan and must abide by control methods outlined in 29 CFR 1926.1153.
    b. Dust control will be a part of every trade's JHAs and SPAs as necessary.

Additional Plans

1. **Traffic Control Plans** – Site specific TCP's will be done in accordance with and approved by District Department of Transportation. Currently Phase II is approved.
2. **Scaffolding Erection Plan** – A site specific written plan for Scaffolding erection must be readily available at the project to outline: material delivery/staging and storage, coordination with other trades, path for overhead loads, critical lifts (if applicable), description of steel erection activities and procedures, bracing, connections. decking installation, protection from falling objects, procedures for hazardous, non-routine tasks.
3. **Fall Protection Plan** - A written plan prepared for the prevention of injuries associated with falls. A Fall Protection Plan must be developed and evaluated on a site-by-site basis.
4. **Storm Water Pollution Plan** – A plan for storm water discharge that includes erosion prevention measures and sediment controls that, when implemented, will decrease soil erosion on a parcel of land decrease off-site nonpoint pollution.

5. **HazCom Plan** – a set of written standards designed to reduce workplace illness and injury by ensuring that all employees are familiar with the names and potential hazards of the chemicals they handle and understand the precautions necessary for protecting themselves and others against any possible risks.
6. **Pre-Construction Photographic Survey** – An in-depth photographic survey to be conducted to document condition of all adjacent properties.
7. **Tower Crane Plans** - Crane Erection/Dismantling plans, swing radius/site plan, approved foundation design, erection permits, inspections (as required) and operator's certifications will be kept in the CSC project office for review by authorized personnel.
8. **Mobile Crane Plans** - A "Crane Packet" for each mobile crane including all inspections, certifications, maintenance records, and lift plans shall be readily available in the CSC project office for review by authorized personnel.

Management Responsibilities (Safety)

George Conard (Project Director)

1. Lead by example.
2. Implement a culture for establishing a positive attitude towards safety by all Clark personnel.
3. Market company's safety program to owners.
4. Ensure project compliance with company's safety program and policies.
5. Ensure adequate funding for the safety program in the annual business plan and establish annual safety budget with the Regional Director of Safety and Health for regional safety activities.
6. Participate in safety related programs including seminars and other safety awareness oriented functions.
7. Make safety the first agenda item for discussion at all staff meetings.
8. Include the RSD in project proposals, reviewing potential projects, and preplanning, as necessary.
9. Require *monthly* safety inspections by Project Executives and Managers, accompanied by a write-up distributed to the Regional Safety and Health Director. This requirement is part of the monthly safety report and is noted as the project executive/project manager walkthrough.

Mac Naeemi (Project Executive)

1. Lead by example.
2. Implement a culture for establishing a positive attitude towards safety by all CSC personnel.
3. Market the project's safety program to owners.
4. Ensure project compliance with company's safety program and policies.
5. Ensure adequate funding for the safety program in the project business plan.
6. Participate in safety related programs including seminars and other safety awareness oriented functions.
7. Make safety the first agenda item for discussion at all staff meetings.

8. Include the RSD in project proposals, reviewing potential projects, and preplanning, as necessary.
9. Require *monthly* safety inspections by Project Executives and Managers, accompanied by a write-up distributed to the Regional Safety and Health Director. This requirement is part of the monthly safety report and is noted as the project executive/project manager walkthrough.

Joe Swank (Construction Executive)

1. Responsible for taking leadership role on their project and for implementing CSC's safety policies and procedures, including the scheduling and participation in safety preplanning meetings as established at the initial safety-preplanning meeting. Include a line item for a safety pre-planning meeting in all schedules to be located before each phase of work and/or before any critical job or process.
2. Supervise, manage and require compliance to the project safety program by all personnel working on the project.
3. Support and implement a ZERO TOLERANCE POLICY for project safety program violations; especially fall protection.
4. Inform risk on all new projects to the Regional Safety Director.
5. Conduct preplanning meetings with the Regional Safety Director/ designated Safety Manager prior to the start of new phases of construction.
6. Participate in the development of the Site Specific Project Safety Program, Fire Prevention and Protection Program, Emergency Action Plan, and additional safety programs, as required.
7. Create a Site Logistics Plan (layout) of the project.
8. Coordinate safe start safety meetings with all subcontractors prior to their start of work.
9. Distribute Site Specific Project Safety Program, Fire Prevention and Protection Program, Emergency Action Plan, and additional safety programs as required to each subcontractor before they start work and discuss their active participation in the incident prevention effort.
10. Set up the project trailer/office to be compliant with federal, state and local regulations.
11. Provide the project trailer/office with a first aid kit, fire extinguishers, exit signs, and an evacuation route.
12. Coordinate safety orientation for project staff and all tradesmen. Orientation process must include documentation with a hardhat sticker, and/or other identification system. The Safety Staff will assist in the orientations whenever possible.
13. Walk the job daily, and pay special attention to any hazardous conditions; conduct a formal weekly documented inspection.
14. The Project Superintendent shall act as the safety coordinator for the duration of the project if none is assigned as a permanent project position by the Safety Department. Superintendent is still responsible for job site safety requirements.
15. Implement a Job Safety Analysis (JSA) system for all critical jobs and/or processes to include, but not limited to, excavation work, crane lifts, confined space work, work at heights, scaffold erection, etc.
16. Must be 10-hour OSHA trained and maintained as part of Superintendent job qualifications.
17. Conduct monthly project safety meetings or weekly coordination meetings with safety as the first topic of discussion. Subjects for discussion should cover but not be limited to:
    a. Superintendents' observations regarding safety

b. Reports of the Project Safety Manager and Actions taken on any recommendations
c. Incidents which have occurred during the past month and methods of eliminating or protecting against them.
d. Conditions and/or actions that may affect the public and methods for correcting them
e. Red Alerts
f. Reports of foreman's Tool Box Safety Meetings
g. Make reference to hazard communication policy

18. Issue safety information to job staff, foremen and subcontractors once a month concerning safety subjects pertinent to the job.
19. Require that each CSC and Subcontractor's foreman hold Tool Box Safety Meetings with their crew at least once each week to discuss the following:
    a. Minutes of staff safety meeting as they affect the work.
    b. Instruct the employees in safe and efficient planning of their work.
    c. The safety subject assigned at the staff safety meeting; safety subjects shall be pertinent to the current work activity.
    d. Injuries or near misses that have occurred.
    e. Solicit comments and suggestions relating to safety.
    f. Issued Red Alerts (as directed by the RSD)
    g. Minutes shall include dates and signatures
20. Require all persons employed on the job, CSC employees and subcontractors, to wear hard hats, safety glasses, proper footwear and clothing as a condition of employment (also includes visitors and employees of owners who are in CSC work areas) per our PPE policy.
21. Provide, require (and properly train where necessary) the use of personal protective equipment by all CSC employees.
22. Require that all subcontractors provide their employees with the proper safety equipment required by the project safety program, and federal, state and local requirements.
23. Review and sign off on (for review purposes only) all major JHAs as determined by the Safety Department.

Piers Spencer (Senior Project Manager)

1. Lead by example.
2. Work with the pre-construction team to ensure an adequate safety budget is estimated
3. During project set-up, evaluate specific project exposures and risks. Implement safety-preplanning programs to properly mitigate risks during subcontract buy-out. Involve insurance companies and Regional Safety Director in project preplanning activities.
4. Conduct pre-construction staff meetings establishing goals and responsibilities, in addition to reemphasizing CSC's mission to be the leader in construction safety.
5. Include field staff early on in projects to review for safety concerns during the preplanning phase.
6. Conduct a monthly safety inspection of each project under their direction and make a written report to the Regional Safety Director. (Can be a checklist type form)
7. Ensure project staff is completing required safety responsibilities throughout the duration of the project.
8. Participate in safety related training programs. Keep current on all new legislative policies for OSHA, and new CSC policies and requirements.

9. Provide support and enforcement follow-thru of safety policies on each jobsite.
10. Ensure project staff attends safety related meetings/training functions.
11. Pursue the acquisition of subcontractor safety programs and MSDS sheets.
12. Work with the Safety Department to determine proper distribution of safe start documents from the project team.

Sam Meyerhoff (Project Manager)

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2. Work with the pre-construction team to ensure an adequate safety budget is estimated
3. During project set-up, evaluate specific project exposures and risks. Implement safety-preplanning programs to properly mitigate risks during subcontract buy-out. Involve insurance companies and Regional Safety Director in project preplanning activities.
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12. Work with the Safety Department to determine proper distribution of safe start documents from the project team.

Adam Cirigliano (Superintendent)

1. Responsible for taking leadership role on their project and for implementing the company's safety policies and procedures, including the scheduling and participation in safety preplanning meetings as established at the initial safety-preplanning meeting. Include a line item for a safety pre-planning meeting in all schedules to be located before each phase of work and/or before any critical job or process.
2. Supervise, manage and require compliance to the project safety program by all personnel working on the project.
3. Support and implement a ZERO TOLERANCE POLICY for project safety program violations; especially fall protection.
4. Inform risk on all new projects to the Regional Safety Director.
5. Conduct preplanning meetings with the Regional Safety Director/ designated Safety Manager prior to the start of new phases of construction.
6. Participate in the development of the Site-Specific Project Safety Program, Fire Prevention and Protection Program, Emergency Action Plan, and additional safety programs, as required.
7. Create a Site Logistics Plan (layout) of the project.
8. Coordinate safe start safety meetings with all subcontractors prior to their start of work.

9. Distribute Site Specific Project Safety Program, Fire Prevention and Protection Program, Emergency Action Plan, and additional safety programs as required to each subcontractor before they start work and discuss their active participation in the incident prevention effort.
10. Set up the project trailer/office to be compliant with federal, state and local regulations.
11. Provide the project trailer/office with a first aid kit, fire extinguishers, exit signs, and an evacuation route.
12. Coordinate safety orientation for project staff and all tradesmen. Orientation process must include documentation with a hardhat sticker, and/or other identification system. The Safety Staff will assist in the orientations whenever possible.
13. Walk the job daily, and pay special attention to any hazardous conditions; conduct a formal weekly documented inspection.
14. The Project Superintendent shall act as the safety coordinator for the duration of the project if none is assigned as a permanent project position by the Safety Department. Superintendent is still responsible for job site safety requirements.
15. Implement a Job Safety Analysis (JSA) system for all critical jobs and/or processes to include, but not limited to, excavation work, crane lifts, confined space work, work at heights, scaffold erection, etc.
16. Must be 10-hour OSHA trained and maintained as part of Superintendent job qualifications.
17. Conduct monthly project safety meetings or weekly coordination meetings with safety as the first topic of discussion. Subjects for discussion should cover but not be limited to:
    a. Superintendents' observations regarding safety
    b. Reports of the Project Safety Manager and Actions taken on any recommendations
    c. Incidents which have occurred during the past month and methods of eliminating or protecting against them.
    d. Conditions and/or actions that may affect the public and methods for correcting them
    e. Red Alerts
    f. Reports of foreman's Tool Box Safety Meetings
    g. Make reference to hazard communication policy
18. Issue safety information to job staff, foremen and subcontractors once a month concerning safety subjects pertinent to the job.
19. Require that each CSC and Subcontractor's foreman hold Tool Box Safety Meetings with their crew at least once each week to discuss the following:
    a. Minutes of staff safety meeting as they affect the work.
    b. Instruct the employees in safe and efficient planning of their work.
    c. The safety subject assigned at the staff safety meeting; safety subjects shall be pertinent to the current work activity.
    d. Injuries or near misses that have occurred.
    e. Solicit comments and suggestions relating to safety.
    f. Issued Red Alerts (as directed by the RSD)
    g. Minutes shall include dates and signatures
20. Require all persons employed on the job, CSC employees and subcontractors, to wear hard hats, safety glasses, proper footwear and clothing as a condition of employment (also includes visitors and employees of owners who are in CSC work areas) per our PPE policy.

21. Provide, require (and properly train where necessary) the use of personal protective equipment by all CSC employees.
22. Require that all subcontractors provide their employees with the proper safety equipment required by the project safety program, and federal, state and local requirements.
23. Review and sign off on (for review purposes only) all major JHAs as determined by the Safety Department.

Alan Sinks (Project Safety Manager)

1. Assist in the development of the project safety program. Must receive approval from the Regional Safety and Health Director.
2. Establish and conduct jobsite orientation for every new employee for the project and administer and record their participation in the orientation program and issue identification to those employees completing the orientation program, in conjunction with the Project Superintendent.
3. Attend all initial meetings with the Project Staff and Subcontractor representatives to clearly define their role within the confines of the Project Safety Programs.
4. Conduct and document safe start meetings with each subcontractor safety representatives and/or foremen to establish safety procedures prior to subcontractor's activity on site.
5. Establish and conduct regular (weekly) safety meetings with subcontractor representatives and issue minutes of meeting and interface with Project Staff and each Subcontractor Safety Representative relating to safety regulations to ensure proper compliance.
6. Ensure that Subcontractors are conducting the proper training requirements as per the OSHA standards.
7. Ensure and maintain a log of each subcontractor's toolbox safety meetings held with their employees.
8. Review each Subcontractors Safety Program and ensure that it meets or exceeds the project Safety Program requirements.
9. Ensure that each Subcontractor designates a Safety Representative that is trained per OSHA standards, competent for the Subcontractors scope of work, and has the proper authority to correct safety issues and hazards relating to their safety compliance. Receive the names of their competent person(s) for their specific work in writing and file.
10. Conduct regular (daily) jobsite and work area inspections. Conduct formal weekly jobsite inspections and complete the safety checklist noting safety violations and corrective actions.
11. Record, notify and prepare written report of any violations or unsafe practices to Subcontractors for immediate correction actions. Copies to Project Manager, Project Superintendent, Subcontractor, Project Executive and Regional Safety and Health Director, as appropriate per project.
12. Stop at once any violation or unsafe practice. Where there is imminent danger to life or property, report incident immediately to the Project Superintendent and Regional Safety and Health Director.
13. Monitor the subcontractor's compliance with testing and recording all potential unsafe environmental conditions such as air quality, noise levels and chemical exposures.
14. Assist Project Superintendent in establishing and implementing proper fire prevention, evacuation, and fire control procedures.

15. Investigate all serious and near miss incidents and generate proper reports to be distributed to Project Superintendent, Project Manager and Regional Safety and Health Director.
16. Establish and maintain all job safety records, including accident and incident reports, investigations and required OSHA reports.
17. If directed by the RSD, establish and maintain a safety incentive program for the project that will award employees and/or subcontractors that excel in safety excellence, in conjunction with the Corporate Safety Department.
18. Organize and contact the proper safety representatives from each subcontractor if necessary for inspections by governmental agencies.
19. Conduct a monthly overview safety meeting, presenting to the Project Representatives, Program Managers and Construction Management Team the state of the Project Safety Programs and overall project safety compliance**.**
20. Compile a written Monthly Project Evaluation report by the 10th of each month, which addresses the previous month's recordable and lost time injuries. Provide the same information for project history from the beginning to current date. Also, categorize the types of injuries consistent with OSHA reporting requirements. Maintain a running total of safe hours worked by all jobsite personnel compared to total man hours worked on site from the beginning of the project to the current date.
21. Assist the Claims Manager in the management of claims, as necessary.
22. Attend the Project Staff Meeting to brief the staff on safety issues on the project and coming from the company, and to keep informed of the progress of the job.
23. In addition to the above requirements, the Contractor Controlled Insurance Program (CCIP), Owner Controlled Insurance Program (OCIP), the Owner, and/or Regional Safety and Health Director may add other duties.

Regen Seydler (Project Engineer)

1. When on the jobsite, enforce and uphold all CSC's safety policies.
2. Design safety into all project processes.
3. Assist in overall safety program implementation.
4. Notify the Safety Manager of new subcontractors.
5. Assist the Project Managers in their responsibilities.

All Clark/Smoot/Consigli Employees

1. All Clark/Smoot/Consigli personnel must adopt and enforce CSC's safety policies. Assist Superintendents, Engineers, Field Office Managers, etc. when on the jobsite in enforcing the safety program so we present a unified commitment to Safety.
2. Attend all appropriate safety training when made available and directed by the Safety Department.
3. Be held responsible and accountable for their own actions or inactions.
4. Lead by Example.

Subcontractors

1. All subcontracting personnel are required to follow all of CSC's safety and health policies, in addition to their own company program when it has more stringent requirements

Project Safety Orientation

All project employees and subcontractor employees must receive a safety orientation prior to starting project work activities. The orientation must be documented with the attached orientation/training checklist and maintained as part of the project safety file. Orientations shall be made job specific.

Incident Reporting

All Incident Investigations must be submitted within 24 hours. Reports must be thoroughly completed and submitted with the required signatures within 24 hours with attached notes, witness statements, pictures, sketches, drawings with measurements and other pertinent evidence. Indicate if there is any physical evidence that has been saved such as a ladder, electrical cord, etc. Identify who, what, where, when, why and by whom. The report can be preliminary in nature (when there is an ongoing investigation). The report must be distributed to:

- Regional Executive Officer
- Project Director
- Project Construction Executive
- Area and Regional Safety Managers
- Corporate Safety Director
- SR Project Manager
- Contracting Officer's Technical Representative (COTR).

The following require **immediate** accident notification to the COTR. Note: This is in addition to the employer's OSHA reporting requirement.

- A fatal injury;
- All work-related inpatient hospitalizations, all amputations, and all losses of an eye.
- Injuries to employees, SI staff, visitors, or members of the public requiring emergency response and/or transport to the hospital;
- Any damage to SI property.

Incident Investigations

It is the policy of Clark Construction/Smoot/Consigli to investigate **ALL** incidents that result in a CSC or Subcontractor employee seeking medical treatment, injury or incident involving the public or property damage. It is further the policy of this Company to investigate all "near miss" or "close call" incidents that could have had serious outcomes. Our desire is to find out what happened, why it happened, and most importantly, how we can prevent a similar incident from occurring in the future. The objective is not to assign blame, but to learn. This process is designed to get all parties involved when an incident occurs and to raise the importance of any incident. CSC shall thoroughly investigate the accident and submit the findings of the

investigation along with root causes and appropriate corrective actions to the COTR as soon as possible but no later than five (5) working days following the accident. Implement corrective actions as soon as reasonably possible. It is important to remember why we investigate:

1. **Identifying patterns, problems, and actions needed** Good records can help you and your employees prevent future workplace injuries. You can use these records to take a proactive approach — spotting trends early and resolving safety concerns quickly — things that are essential to maintaining a safe workplace. Incomplete records can allow minor issues to snowball, harming you and your employees.
2. **Protecting the organization** If you face a lawsuit, complete records can demonstrate that you are concerned about safety issues and have taken appropriate steps to obey the law.
3. **Enhancing morale** The desire to keep good safety records shows your concern for your employees and promotes a positive, open atmosphere. Seeking honest input helps to build trust and encourage productivity and loyalty.

Hazard Control Measures

1. **Elimination/Substitution:** remove the hazard from the workplace
2. **Engineering Controls**: includes designs or modifications to plants, equipment, ventilation systems, and processes that reduce the source of exposure.
3. **Administrative Controls:** controls that alter the way the work is done, including timing of work, policies and other rules, and work practices such as standards and operating procedures (including training, housekeeping, and equipment maintenance, and personal hygiene practices)
4. **Personal Protective Equipment**: equipment worn by individuals to reduce exposure such as contact with chemicals or exposure to noise

JHA Descriptions

Some tasks, by their nature, can expose employees to the risk of injury. To make them as safe as possible, such work activities require special planning and training. Job Hazard Analysis (JHA) is a process to identify the hazards or risks associated with a task or work activity and to be systematically addressing them. A thorough JHA is also an excellent tool to train employees performing the task and to solicit their input into the safe execution of the task or activity.

Site Inspections (Descriptions)

Each Project Superintendent is required to formally inspect his or her project on a weekly basis following the Safety and Health Audit format or another approved format. Any unsafe condition or act discovered should be corrected on the spot, if possible, by direction to the Foreman or Superintendent responsible for the work. If an unsafe condition or act could result in an injury, the work should be stopped until the situation is resolved. All employees exposed to injury should be removed from the exposure and only those required to correct the problem allowed to remain –

with appropriate protection for the circumstances.

Safety Violation Policy

The Project Safety Manager and Project Superintendent will determine the disciplinary action to be taken which best suits the circumstances. The steps to be taken, at a minimum, shall include the following, but not necessarily in this order:

- **Verbal Warning**: As the first step in correcting an unacceptable behavior or minor infraction, a verbal warning will be issued to the individual. This warning will be documented.
- **Written Warning**: If the unacceptable performance continues, or the severity of the infraction warrants, the next step will be a written warning. The written warning will clearly state the safety policy that was violated and steps the individual must take to correct it.
- **Suspension**: If the unacceptable practice continues or the severity of the infraction warrants, the individual will be given time off without pay.
- **Site Removal**: Individuals may be terminated if they do not improve their safety performance.
- **Immediate Site Removal:** Any individual who commits a serious safety violation may be subject to immediate site removal without prior notice in lieu of any verbal and/or written warnings.

  Fighting, possession or use of illegal drugs or weapons, or flagrant violations or disregard of project safety rules is handled in accordance with the company's HR policies and what is found in this policy.

Incident/Medical/Investigation Forms

- Incident Investigation Forms/Procedures
- Incident Notification Procedures
- Vehicle Incident Report
- Builders Risk Property Incident Report
- Panel of Physicians
- Liability Incident Report
- First Aid Log/First Aid Supplies
- Medical Authorization Slip
- Equipment Theft Damage Report

Report Forms

- Fire Protection Check List
- Hot Work Permit
- Project Safety Documentation – Monthly Checklist
- Safety Inspection Report

- Safety Violation Notice
- Project Safety Meeting Agenda and Minutes for Superintendents –General Outline
- Weekly Tool Box Talks

Equipment Reports

- Hoist Weekly Inspection
- Mobile Crane Safety Inspection Record
- Tower Crane Maintenance and Service Report
- Crane Safety Inspection Checklist/Crane Test

Release Forms

- Elevator Release
- General Release – Visitors
- General Release – Visitors for minors
- Hoist Release
- Scaffold Release
- Parking License Agreement
- Equipment Issue Release Log
- Project Site Access License Agreement

CSC Completed Files

As forms and reports are filled out, they should be filed electronically following these guidelines.

Incidents (Note: This includes the Incident Investigation Report and all appropriate backup that goes along with the incident.

- Equipment Reports
- Hoist Weekly Inspection
- Mobile Crane Safety Inspection Record
- Tower Crane Maintenance and Service Report
- Equipment Theft/Damage Report
- Hot Work Permits
- Liability Incident Reports
- New Hire Orientation Completed sign-up sheets
- OSHA
- Copy of completed OSHA 300A (February 1 – April 30 each year)
- Citations – Open/Correspondence
- Closed Citations file (complete)
- Project Safety Documentation – Monthly Checklist
- Project Safety meeting agenda and minutes for Superintendents
- Safety Inspection Report
- Violation Notice (CSC only)
- Weekly tool box talks.

Subcontractor Documentation – Prepare a folder for each subcontractor to include:

- Incident Reports
- Correspondence
- Equipment Logs (cranes, hoists, forklifts, etc.)
- Safety Inspection Reports
- Subcontractor Safe Start Paperwork
- Toolbox Talks
- Violations
- Weekly Safety Meeting minutes/Sign-in sheets

Environmental Protection/Hazardous Material Handling

1. **Written Hazard Communication Program**
    a. CSC and subcontractors shall develop, implement, and maintain at each workplace, a written hazard communication program, which at least describes how the criteria specified in the Clark's Safety Manual C-11(6) will be met, which also includes the following
        - A list of hazardous chemicals known to be present using a product identifier that is reference on the appropriate Safety Data Sheet; and,
        - The methods the employer will use to inform employees of the hazards of non-routine tasks, and the hazards associated with chemicals contained in unlabeled pipes in their work areas.
        - The methods the employer will use to provide the other employer(s) on-site access to safety data sheets for each hazardous chemical the other employer(s)' employees may be exposed to while working;
        - The methods the employer will use to inform the other employer(s) of any precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies; and,
        - The methods the employer will use to inform the other employer(s) of the labeling system used in the workplace.
    b. Employers shall ensure that each container of hazardous chemicals is properly labeled with the information required by the Global Harmonization Standard.
    c. Employers shall have SDS in the workplace for each hazardous chemical which they use.
    d. The Project Safety Manager will maintain the SDS
    e. Copies of SDS may be obtained upon request

2. **Inventory Control**
    a. The Project Superintendent shall make a review of the hazardous materials required during construction. Inventory quantities, including used and unused, shall be established for each type of material. Designated storage locations shall be established for quantities on hand. The types of liquids to be stored, quantity levels and locations shall be reviewed and approved by the Project Executive prior to implementation.

b. The Project Safety Manager or designee throughout the duration of the project shall maintain an inventory of the hazardous materials. The updated inventory log will be submitted to the Smithsonian Institute quarterly for reporting purposes to the Local Emergency Planning Committees in accordance with EPCRA requirements.
c. The Project Safety Manager or designee shall perform periodic inspections of the site to prevent inventory build-up. Any exceptions found during inspection shall be reported to the Project Executive for corrective action.

3. **Handling and Storage**
   a. To the extent practical, oils and other hazardous liquids shall be stored in a controlled area away from modules, other buildings, and/or equipment.
   b. Portable skids to contain 55-gallon drums shall be utilized at long-term storage locations. The skid shall have a sealed floor with a collection system to contain all possible leaks due to either faulty valves or damaged drums. The drums shall stored be protected from weather and water intrusion.

4. **Protection of Environmental Resources**
   a. CSC will protect environment resources inside the project boundaries and those affected outside the limits of the permanent work during the entire period of the contract.
   b. Activities will be confined to areas defined by the specifications and drawings

5. **Disposal of Hazardous Material**
   a. All subcontractors are required to immediately notify CSC of any spillage of leakage of hazardous materials, oils, substance, and waste, regardless of the quantity
   b. Spill and Waste Disposal will be managed in accordance with the Clark Safety policies C-9(6)(e) and C-12(8)(b)(8).

- Verbal/Written Spill Reporting Requirements
- The responsible Superintendent shall make an initial verbal report to the Safety & Health Department, providing the following information:
- Specific Site Location
- Source of Spill
- Time Spill first observed
- Type of Spill
- Estimate of spill volume
- Is spill contained?
- Any injuries, fire, or explosion.
- Remedial Action Taken
- Wind direction/MPH
- Precipitation
- Temperature

c. If applicable, in the event of a major release, the CSC Project Superintendent or Project Safety Manger shall immediately notify the CSC Project Executive who will make an immediate initial verbal report the U.S. Coast Guard or the Local Fire Department HAZMAT Response Unit. If unable to contact the local Coast Guard Office or Fire Department, the Project Executive will contact the National Response Center, Washington DC.
d. Once the initial report has been made, the Project Executive shall notify the project owner and provide details of the spill.

6. **Trash Control**
   a. All construction debris will be removed on a regular basis via dumpster service and will be disposed of in the proper approved location. Dumpsters and trashcans will be placed throughout the project.
   b. Daily project clean-up will be performed. Subcontractors are responsible for maintaining their work areas. Project clean-up includes trash collection, cleaning of on-site roadways and off-site roadways if required.
   c. In addition to the hazardous Waste Management Plan, the waste removal contractor shall be required to present the appropriate waste hazardous and solid waste licenses/permit(s) and landfill/disposal manifest(s), etc., prior to removal of any hazardous and solid waste classified and/or regulated materials. Copies shall be given to CSC and shall be kept in CSC's permanent project files.

Fire Prevention Plan

1. **General Requirements**
   a. Portable ABC fire extinguishers shall be located throughout facilities in accordance with applicable requirements. These shall be always charged and properly certified. They shall be designed for use on small fires.
   b. The placement of fire extinguishers is to be a minimum of one per stairway, per stairway, in addition to the OSHA requirement which states that an extinguisher must be provided for every 3,000 square feet of the protected building area, or major fraction thereof. Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 100 feet.
   c. Special extinguishing systems (if any) shall be installed, inspected, tested, and maintained according to manufacturer, OSHA and NFPA requirements. Halon systems and extinguishers shall not be used unless their use is specifically approved by local fire department.
   d. When applicable, a means of controlling liquid run-off from a credible fire shall be provided so that contaminated or polluted liquids will not escape the site
   e. Special Fire Protection Requirements.
      i. Adequate fire lanes shall be maintained to permit fire department access to buildings or equipment.
      ii. In all new buildings in which standpipes are required or where standpipes exist in buildings being altered or demolished, such standpipes shall be

maintained in conformity with the progress of building construction in such a manner that they are always ready for use.

iii. Flammable Vapors.
   1. In work areas where the potential exists for accumulation of flammable vapors, engineering and/or administrative controls shall be provided to ensure that the concentration of such vapors does not exceed 10% of the lower explosion limit (LEL).
   2. Flammable and combustible liquids shall be stored and used in accordance with NFPA Requirements 8 S&H-206.

f. **Smoking shall only be allowed in designated areas OUTSIDE of NASM**

2. **Flammable/Combustible Materials.**
   a. General Requirements:
      i. Organic solvents and fuels with the lowest fire hazard and toxic properties shall be used.
      ii. Users of flammable liquids shall be trained in the safe practices outlined in this procedure, which shall include the hazardous characteristics of the specific flammable liquids they are using. Material Safety Data Sheets (MSDS) shall assist with the specific training of the hazardous characteristics.
      iii. The "No Smoking or Open Flames" posting shall be strictly enforced where flammable liquids are being used or stored.
      iv. The use of flammable liquids shall be constantly monitored during welding/cutting operations to ensure there are no flammable or combustible hazards in the area.
      v. Work efforts (e.g., painting, solvent cleaning of parts, etc.) and work areas where the potential exists for vapor accumulation shall incorporate fire prevention provisions including engineering and/or administrative controls. These controls are intended to prevent the concentration of any flammable or combustible material from exceeding 10% of the applicable lower explosive limit.
      vi. Empty flammable liquid containers shall be kept away from ignition sources.
      vii. Flammable and combustible liquids shall be stored at least 10 feet away from stairways, elevators, and exits.
      viii. Personnel working with or around flammable or combustible liquids shall be trained to this procedure.
      ix. Plastic storage containers shall not be permitted on projects.
      x. Subcontractors using flammables and/or combustibles inside a structure are responsible for monitoring atmospheric conditions, as well as providing proper ventilation for the operation(s).
      xi. All paints, liquids and/or other flammable materials shall be stored in buildings in compliance with all applicable OSHA and NFPA standards.

b. Implementation
    i. Receiving and Storage
        1. Flammable and combustible liquids shall be received and stored in approved open storage areas, approved facilities, or in flammable liquid storage cabinets.
        2. Storage areas shall be designed to prevent the spread of fire to other areas and shall have adequate separation distance.
        3. The storage areas shall be posted "Danger Flammable Liquids" and "No Smoking or Open Flames."
        4. Contingency plans shall be included in the building emergency procedures when storing flammable and combustible liquids.
        5. Flammable liquid storage cabinets shall be UL listed, FM approved, or acceptable to the Field Safety and Health Staff.
        6. Flammable liquid storage cabinets shall be limited to a maximum of three (3) cabinets in any one-fire area.
        7. Flammables and combustibles stored in flammable liquid storage cabinets shall not exceed a cumulative capacity of 120 gallons.
        8. Maximum container sizes for storing flammable and combustible liquids shall be in accordance with the sizes listed in the following table. Flammable and combustible liquids shall be stored in the original manufacturers can unless transferred to an approved container.

Container Type	Flammable Liquids			Combustible Liquids	
	Class IA	*Class IB*	*Class IC*	*Class II*	*Class III*
Metal (other than DOT/UN drums) Or plastic	1 gal.	5 gal.	5 gal.	5 gal.	5 gal.
Safety Cans	2 gal.	5 gal.	5 gal.	5 gal.	6 gal.
DOT/UN spec. Metal Drum	60 gal.	60 gal.	60 gal.	60 gal.	60 gal.

c. Transfer of Flammable Liquids
    i. Flammable liquids transferred from the original manufacturer's container after being opened shall only be transferred into an approved container.
    ii. When not in use containers shall be kept closed except when transfers are being made.
    iii. When transferring flammable liquids between conductive containers, the containers must be effectively bonded and grounded.
    iv. A maximum of one day supply of flammable liquids shall be kept in a work area at one time.
    v. The one-day supply shall be returned to the designated storage area at the end of each work shift.
    vi. Secondary containers of flammable and combustible liquids shall be labeled with the name and hazards of the contents in accordance with the

Hazard Communication Program.

3. **Temporary Offices and Sheds Inside Buildings:**
    a. All temporary buildings inside of buildings shall be made of non-combustible material or be fire rated for not less than 1 hour.
    b. Only approved heating devices installed in accordance with the manufacturer's specifications shall be used in temporary offices or sheds.
    c. Each temporary shed shall have an ABC rated fire extinguisher inside and be within 50' of occupants.

4. **Hot Work:**
    a. PROCEDURE
        A hot work permit is required when ignition sources may be introduced. The contractor's Site Safety Representative (SSR) is responsible for all site hot work.

    b. DEFINITION
        Hot work is any process which because of its design or function can cause ignition of a gaseous or vaporous atmosphere due to direct or indirect contact.

    c. HOT WORK PERMIT
        The SSR has surveyed the site and found the following Hot Work condition(s) do/may exist at and will require permitting (location).
            - A new hot work permit will be required for each specific task and or location
            - A new hot work permit will be required at the beginning of each shift or after more than one (1) hour intervals of hot work shut down.
            - The hot work permit shall be posted at the work site. Upon completion of the work, it shall be saved in the files for one year.
            - The job supervisor shall review and discuss the Standard Operating procedures, Emergency procedures, training requirements, and ensure that all the necessary equipment specified in this permit is readily available on site (on or near the hot work operations)

    d. FIRE PROTECTION
        i. When possible, objects to be welded, cut, or heated shall be moved to a designated safe location. If this is not possible, all movable fire hazards in the work space shall be taken away to a safe place.
        ii. If the object to be welded, cut or heated cannot be moved and all fire hazards cannot be removed (e.g., equipment, walls, floors, etc.), positive means shall be taken to confine the heat, sparks, and slag to protect the immovable fire hazards as well as opposite sides.
        iii. No welding, cutting, or heating shall be done where the application of

flammable paint, the presence of other flammable compounds, or heavy dust concentration create a possible hazard.

iv. Wherever there are openings or cracks in the flooring that cannot be closed, precautions shall be taken so that no sparks will drop through the floor. The same precautions shall be taken in the presence of cracks or holes in walls, open doorways, and open or broken windows.

v. Approved fire extinguishing equipment shall be present in the immediate work area.

e. FIRE WATCH
   i. A fire watch shall be maintained for at least 30 minutes or a predetermined time after completion of welding/cutting operations so that possible smoldering fire can be detected and extinguished.
   ii. Fire watchers shall have fire extinguishing equipment readily available and be trained in its use.
   iii. They shall be familiar with facilities and procedures in the event of a fire. They shall watch for fires in all exposed areas and attempt to extinguish them only when obviously within the capacity of the equipment available. The Fire Department shall be immediately notified of all fires.
   iv. Fire watchers shall be located in the immediate vicinity of the hazard

5. **Storage of Compressed Gas Cylinders**
   a. Compressed gas cylinders shall be legibly marked with either the chemical or trade name of the gas. Such markings shall be stenciled, stamped, or labeled and shall not be easily removable. .
   b. The marking shall be located on the shoulder of the cylinder.
   c. Compressed gas cylinders shall be equipped with approved connections.
   d. Acetylene cylinders shall be stored and used valve end up.
   e. Oxygen cylinders shall not be stored near highly combustible/flammable materials, especially oil or grease.
   f. Oxygen cylinders in use or in storage shall be separated from fuel-gas cylinders by a non-combustible barrier at least 5 feet high and having a fire resistance rating of at least one half hour. Oxygen cylinders in storage shall be separated from combustible materials (especially oil or grease) by a minimum distance of twenty feet.
   g. All Oxygen cylinder carts shall have a non-combustible barrier at least 5 feet high and having a fire resistance rating of at least one half hour.
   h. Cylinders shall be not dropped, struck by objects, or permitted to strike each other violently.
   i. Cylinder valves shall be closed before moving cylinders.
   j. Cylinder valves shall be closed at the end of the shift or when work is finished.
   k. Valves of empty cylinder shall be closed.
   l. Cylinders shall be kept far enough away from the actual welding/cutting operation

so that sparks, hot slag, or flames will not reach them.

m. Cylinder valves shall always be opened slowly.
n. An acetylene cylinder valve shall not be opened more than one and one-half turns of the valve stem and preferably no more than three-fourths of a turn.
o. Where a special wrench is required to operate a cylinder valve, it shall be left in position on the stem of the valve while the cylinder is in use. In the case of manifolded or coupled cylinders, at least one such wrench shall be available for immediate use.
p. Regulators shall be removed, valve caps in place, and valves closed when cylinders are transported by vehicles. All vehicles used to transport cylinders shall have a proper support rack installed.
q. A suitable cylinder truck, chain, or other steadying device shall be used to prevent cylinders from being knocked over while in use or storage.
r. Cylinders shall not be placed where they may become part of an electric circuit. Tapping of an electrode against a cylinder to strike an arc shall be prohibited.
s. Cylinders shall be used/stored in an upright secured position at all times.

6. **Temporary Heating Equipment**
    a. All equipment shall be UL listed
    b. All equipment shall be installed in accordance with its listing, including clearance to combustible material, equipment, or construction
    c. All equipment shall be installed, used and maintained in accordance with the manufacturer's instructions
    d. All equipment shall be placed and used in such a manner so that it is secured against overturning or displacement.
    e. Only personnel familiar with the operation of the temporary heating equipment shall be allowed to operate it.
    f. Temporary heating equipment, where utilized, shall be monitored for safe operation and maintained by personnel as listed above.
    g. Temporary heating equipment shall be inspected before each use. Any defective units shall be removed form service immediately.
    h. Temporary heating devices using exposed radiant heating wires shall not be used
    i. Fuel supplies for LP gas heaters shall comply with NFPA 54
    j. Refueling shall be done in an approved manner.

Mold Prevention

1. **PHASES OF CONSTRUCTION (EXPOSURES)**

    a. Renovation of exterior of museum
        i. Prior to removal of any exterior façade, CSC will have already erected an interior wall, that will be water proofed. This will protect water intrusion from the exterior areas being removed and replaced.

b. Renovation of glass atrium
    i. Upon erection of large area scaffold to support workers, tools and material below the atrium, waterproofing will be installed to protect against water intrusion while performing the renovation of the atrium glass.

2. **INSPECTION AND IDENTIFICATION OF MOLD**

Safety managers and Superintendents are capable of identifying and investigating mold shall conduct visual inspections of the facility throughout the construction process. Visual inspections shall be supplemented with the use of non-destructive moisture testing of suspect building materials to identify possible areas of fungal contamination. When mold growth or elevated moisture content is identified, the affected area shall be marked for removal. Removal shall be completed in accordance with the procedures detailed herein. All sources or causes of fungal contamination, specifically sources of water intrusion, shall be immediately repaired to prevent, to the greatest extent practical, occurrences of fungal growth. Because of the potential for adverse claims, it is important to document all mold growth photographically. For this reason, all mold should be photographed in “before” and “after” states.

3. **PROCEDURES FOR REMOVAL OF SMALL AREAS OF MATERIAL**

a. Preparation - The immediate work area shall be unoccupied except for persons properly outfitted in personal protective equipment to perform the remediation work. Caution tape shall be used to demarcate the work area and to restrict access. Once construction has reached the “Controlled” Phase and before any work of any kind begins the Superintendent shall call the CSC Safety Department to inform of the mold contamination and to allow Safety to guide the successful completion of the remediation effort.
b. Personal Protective Equipment - Respiratory protection (N95 disposable respirator at a minimum, P100 recommended), in accordance with the OSHA respiratory protection standard (29 CFR 1910.134), is required. All personnel performing remediation work shall wear gloves and eye protection. Tyvex suits should be available to workers that request them. Decontamination of personnel and equipment exiting work areas shall be required. Personnel shall wet wipe and/or HEPA vacuum any visible dust, debris, or mold from PPE, clothing, etc. Equipment shall be decontaminated in the same manner. All used disposable protective clothing shall be placed in a disposal bag for disposal with other contaminated debris from the work area. PPE shall not be worn outside the work area and personnel without required PPE may not enter the work area.
c. Remediation Procedures - Only CSC approved personnel and/or subcontractors shall conduct remediation. Such persons shall receive training on proper cleanup methods, personal protection, and potential health hazards. This training can be performed as part of a program to comply with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200). Once construction has reached the “Controlled” phase, the work must be overseen by a safety specialist/industrial hygienist. Dust suppression methods, such as the use of HEPA vacuums and use of an anti-microbial cleaner, such as Fiberlock IAQ 2000 for misting (not soaking) of surfaces prior to cutting and during removal shall be

performed. Contaminated materials shall be cut using appropriate cutting tools or instruments and removed with special care taken to minimize breakage that could result in the release of mold spores. Materials shall be removed to a distance of at least one foot (1') past any area of visible fungal growth. All porous building materials in direct contact with the contaminated building materials (such as insulation behind drywall) that have been removed shall also be removed. Contaminated materials shall be removed and immediately placed in a sealed polyethylene bag for removal from the building. Alternatively, large sections of contaminated materials may be wrapped in 6-mil polyethylene for disposal. Thereafter, they may be placed in the regular construction debris dumpsters on site. There are no special disposal requirements for mold-contaminated materials. Personnel performing the remediation shall immediately notify the Safety Department or on-site safety specialist/industrial hygienist of any additional suspected mold identified during the remediation process. Proceed with remediation activity for any additional mold identified in accordance with this program, based on the total quantity of material in that area. All non-porous materials adjacent to the contaminated materials that have been removed (e.g. metal studs, concrete block) shall be vacuumed with a HEPA-filtered vacuum cleaner, and then shall be cleaned with an EPA-registered Anti-Microbial Disinfectant cleaner such as Fiberlock IAQ 2000, and then shall be HEPA vacuumed again. Thereafter, these materials shall be coated with a general anti-microbial encapsulate, such as Fiberlock IAQ 6000. The work area shall be left dry and visibly free from contamination and debris.

d. Acceptance and Closure Criteria - The remediation work shall be deemed successfully completed if the following criterion is met:
    - There is no visible debris or suspect mold growth in the work area.
    - Once construction has reached the "controlled" phase, onsite industrial hygienist/safety specialist shall conduct all acceptance criteria inspections. If the acceptance criterion is not met, then the work area shall be re-cleaned until the acceptance criteria are met.
    - As documentary evidence of the remediation work performed, a digital photograph shall be taken of the mold before the remediation work is commenced, and another photograph shall be taken at the conclusion of the remediation work, before any materials are put back in place.

4. PROCEDURES FOR REMOVAL OF MEDIUM SIZED AREAS OF MATERIAL

a. Preparation - Before any work of any kind begins, the Superintendent shall call the CSC Safety Department to inform of the mold contamination and to allow Safety to guide the successful completion of the remediation effort. The floors of the work area and areas immediately adjacent shall be covered with a single layer of 6-mil polyethylene sheeting secured in place to contain dust and debris. In lieu of covering floors of the work area, the surfaces may be fine cleaned as a part of the cleaning effort at the conclusion of the remediation effort. All ventilation system ducts, grills, and openings and shall be covered with a single layer of 6-mil polyethylene sheeting secured in place with tape. Doors, windows, and other openings shall be covered with a single layer of 6-mil polyethylene sheeting to enclose the work area. Any furniture or equipment within the work area that can be moved shall be removed prior to commencing the work. If such

items cannot be removed, they shall be protected by covering them with 6-mil polyethylene sheeting taped securely in place. The immediate work area shall be unoccupied except for persons properly outfitted in personal protective equipment to perform the remediation work. Caution tape shall be used to demarcate the work area and to restrict access.

b. Personal Protective Equipment - Respiratory protection (N95 disposable respirator at a minimum, P100 recommended), in accordance with the OSHA respiratory protection standard (29 CFR 1910.134), is required. All personnel working inside the containment shall wear a disposable (e.g. Tyvek) suit with integral hood and booties. All persons performing remediation work shall wear gloves and eye protection. The protective clothing and gloves shall be worn in a manner to protect the wrists. Decontamination of personnel and equipment exiting work areas shall be required. Personnel shall wet wipe and/or HEPA vacuum any visible dust, debris, or mold from PPE, clothing, etc. Equipment shall be decontaminated in the same manner. All used disposable protective clothing shall be placed in a disposal bag for disposal with other contaminated debris from the work area. PPE shall not be worn outside the work area and personnel without required PPE may not enter the work area.

c. Remediation Procedures - A preliminary call must be made to the CSC Safety Department before any remediation procedure begins. Safety will investigate the area of contamination and will make specific recommendations regarding the remediation and clearance procedures. The remediation work must be overseen by a safety specialist/industrial hygienist. Only CSC approved personnel and/or subcontractors shall conduct remediation. Such persons shall receive training on proper cleanup methods, personal protection, and potential health hazards. This training can be performed as part of a program to comply with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200). Dust suppression methods, such as HEPA vacuuming and misting (not soaking) of surfaces prior to cutting and removal shall be performed. Contaminated materials shall be cut using appropriate cutting tools or instruments and removed with special care taken to minimize breakage that could result in the release of mold spores. Materials shall be removed to a distance of at least two feet (2') past any area of visible fungal growth. All porous building materials in direct contact with the contaminated building materials (such as insulation behind drywall) that have been removed shall also be removed. Contaminated materials shall be removed and immediately placed in a sealed polyethylene bag for removal from the building. Alternatively, large sections of contaminated materials may be wrapped in 6-mil polyethylene for disposal. Thereafter, they may be placed in the regular construction debris dumpsters on site. There are no special disposal requirements for mold-contaminated materials. Personnel performing the remediation shall immediately notify the Safety Department or the onsite industrial hygienist/safety specialist of any additional suspected mold identified during the remediation process. Proceed with remediation activity for any additional mold identified in accordance with this program, based on the total quantity of material in that area. All non-porous materials adjacent to the contaminated materials that have been removed (e.g. metal studs) shall be vacuumed with a HEPA-filtered vacuum cleaner, then shall be cleaned with an EPA registered Anti-Microbial Disinfectant cleaner such as Fiberlock IAQ 2000, and then shall be HEPA vacuumed again. Thereafter, these materials shall be

coated with a general anti-microbial encapsulate, such as Fiberlock IAQ 6000. The floor of the work area and areas used by remedial workers for egress shall be HEPA vacuumed, then shall be cleaned with an EPA-registered Anti-Microbial Disinfectant cleaner such as Fiberlock IAQ 2000, and then shall be HEPA vacuumed again. If the floor of the work area was covered with 6-mil polyethylene sheeting, the polyethylene shall be HEPA vacuumed and then shall be coated with a general anti-microbial encapsulate, such as Fiberlock IAQ 6000. At the conclusion of work, and after the clearance criteria have been met (see below) all polyethylene sheeting shall be carefully removed, folded and placed into a disposal bag for transport out of the building. All areas shall be left dry and visibly free from contamination and debris.

d. Acceptance and Closure Criteria - The remediation work shall be deemed successfully completed if the following criterion is met:
    - There is no visible debris or suspect mold growth in the work area.
    - An industrial hygienist/safety specialist shall conduct all acceptance criteria inspections. If the acceptance criterion is not met, then the work area shall be re-cleaned until the acceptance criteria are met.
    - As documentary evidence of the remediation work performed, a digital photograph shall be taken of the mold before the remediation work is commenced, and another photograph shall be taken at the conclusion of the remediation work, before any materials are put back in place.

5. **PROCEDURES FOR REMOVAL OF MATERIAL WITH EXTENSIVE CONTAMINATION**
    a. Preparation - Before any work of any kind begins, the Superintendent shall call the Clark Safety Department to inform of the mold contamination and to allow Safety to guide the successful completion of the remediation effort. The work area shall be placed under full negative pressure containment. All supply and air vents, doors, chases, windows, and risers within the containment area must be sealed with one layer of 6-mil polyethylene sheeting to minimize the migration of contaminants to other parts of the building. The enclosure around the work area shall consist of a single layer of 6-mil, fire-retardant polyethylene sheeting. The polyethylene sheeting shall be affixed to floors, walls, and ceilings with duct tape. In lieu of covering all walls, floors, and surfaces to remain, the surfaces may be fine cleaned as a part of the cleaning effort at the conclusion of the remediation effort. The containment shall have a slit entry and covering flap on the outside of the containment area to form a flapped door. An equipment room shall be constructed in front of this flapped opening and shall be large enough to accommodate workers to wet wipe and HEPA-vacuum their protective clothing prior to exiting the enclosure. Negative pressure of the limited containment relative to surrounding areas shall be established by means of a HEPA filtered negative air machine (NAM). The negative pressure differential shall be maintained at not less than 0.01” water gauge (WG). Negative pressure differential shall also be tested by using a smoke tube tester at doors, outside openings (doors and windows), and other access points. During the smoke tube testing, smoke shall travel in a direction away from windows, doors, and outside openings as an indication of proper negative pressure differential and effective air flow toward the negative filtration devices. The floor of the area immediately adjacent to the entrance to the containment shall be covered with a single layer

of 6-mil polyethylene sheeting. Any furniture or equipment within the work area that can be moved shall be removed prior to commencing the work. If such items cannot be removed, they shall be protected by covering them with 6-mil polyethylene sheeting taped securely in place. The immediate work area shall be unoccupied except for persons properly outfitted in personal protective equipment to perform the remediation work. Caution tape shall be used to demarcate the work area and to restrict access.

b. Personal Protective Equipment - Respiratory protection shall consist of a half-face or full-face air-purifying respirator (APR) equipped with EPA filter cartridges (P100). Respirator use shall be in accordance with the OSHA respiratory protection standard (29 CFR 1910.134). All personnel working inside the containment shall wear a disposable (e.g. Tyvek) suit with integral hood and booties. All persons performing remediation work shall wear gloves and eye protection. The protective clothing and gloves shall be worn in a manner to protect the wrists. Decontamination of personnel and equipment exiting work areas shall be required. Personnel shall wet wipe and/or HEPA vacuum any visible dust, debris, or mold from PPE, clothing, etc. Equipment shall be decontaminated in the same manner. PPE shall not be worn outside the work area and personnel without required PPE may not enter the work area.

c. Remediation Procedures - A Preliminary call must be made to the Clark Safety Department before any remediation procedures begin. Only qualified subcontractors shall conduct remediation. Such persons shall receive training on proper cleanup methods, personal protection, and potential health hazards. This training can be performed as part of a program to comply with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200). Remediation shall be completed under the supervision of a safety specialist/ industrial hygienist and/or an independent industrial hygiene firm. Dust suppression methods, such as HEPA vacuuming and misting (not soaking) of surfaces prior to cutting and removal shall be performed. Contaminated materials shall be cut using appropriate cutting tools or instruments and shall be removed with special care taken to minimize breakage that could result in the release of mold spores. Materials shall be removed to a distance of at least two feet (2') past any area of visible fungal growth. All porous building materials in direct contact with the contaminated building materials (such as insulation behind drywall) that have been removed shall also be removed. Personnel performing the remediation shall immediately notify the independent onsite industrial hygienist of any additional suspected mold identified during the remediation process. The onsite industrial hygienist shall then perform an inspection of the suspected area and will advise the remediation personnel how to proceed. Contaminated materials shall be removed and placed in a sealed polyethylene bag for removal from the building. Sections of materials shall be cut into sizes small enough to be placed into disposal bags. Alternatively, large sections of contaminated materials may be wrapped in 6-mil polyethylene for disposal. The outside of all bags or wrapping shall be thoroughly HEPA vacuumed prior to removal from the work area after the bag or wrapping has been sealed. Thereafter, all bagged or wrapped materials may be placed in the regular construction debris dumpsters on site. There are no special requirements for the disposal of moldy materials. All surfaces in the containment shall be vacuumed with a HEPA-filtered vacuum cleaner, then shall be cleaned with an EPA-

registered Anti-Microbial Disinfectant cleaner such as Fiberlock IAQ 2000, and then shall be HEPA vacuumed again. Thereafter, the non-porous materials shall be coated with a general anti-microbial encapsulate, such as Fiberlock IAQ 6000. All workers exiting from the work area shall go through the flapped doorway leading to the equipment room. Once in the equipment room, the worker shall remove dust on protective clothing by HEPA vacuuming and wet wiping the entire surface of the clothing prior to removal. Similarly, the worker shall HEPA vacuum and wet wipe all around the respirator and eye protection prior to removing them. All used disposable protective clothing shall be placed in a disposal bag for disposal with other contaminated debris from the work area. All equipment used inside the work area shall be completely vacuumed with a HEPA-filtered vacuum cleaner, and then shall be cleaned with an EPA-registered Anti-Microbial Disinfectant cleaner such as Fiberlock IAQ 2000, and then shall be HEPA vacuumed again prior to removal from the work area. The polyethylene sheeting covering the floor of the work area and areas used by remedial workers for egress shall be HEPA vacuumed, then shall be cleaned with an EPA-registered Anti-Microbial Disinfectant cleaner such as Fiberlock IAQ 2000, and then shall be coated with a general anti-microbial encapsulate, such as Fiberlock IAQ 6000. At the conclusion of work and after the clearance criteria have been met (see below) the polyethylene sheeting of the containment shall be carefully removed, folded and placed into a disposal bag for transport out of the building. Any other polyethylene sheeting used shall also be carefully removed and placed in a disposal bag for transport out of the building. All areas shall be left dry and visibly free from contamination and debris.

d. Acceptance and Closure Criteria - Upon completion of the remediation work, each containment shall remain in place until the acceptance criteria are achieved and is released by the onsite industrial hygienist. The remediation work shall be deemed successfully completed if the following criteria are met:
    - There is no visible dust, debris, or suspect mold growth inside the containment,
    - The results of a volumetric, non-viable spore trap analysis reveal a concentration of spores within the containment that is less than half of outdoors,
    - All spores identified in direct identification surface samples are reported as “few” or “occasional”, and Specific fungal species and concentrations of those species are similar to those isolated in an outdoor control sample (to be collected at the same time as the clearance samples).
    - The quantity and location of sampling shall be determined at the discretion of the onsite industrial hygienist. If the acceptance criteria are not met, then the work area shall be re-cleaned until the acceptance criteria are met.
    - As documentary evidence of the remediation work performed, a digital photograph shall be taken of the mold before the remediation work is commenced, and another photograph shall be taken at the conclusion of the remediation work, before any materials are put back in place.