



# Environmental Management Plan for Central Bank of The Bahamas Demolition Project, New Providence



SEV Consulting Group

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# **ENVIRONMENTAL MANAGEMENT PLAN FOR THE CENTRAL BANK OF THE BAHAMAS DEMOLITION PROJECT, NEW PROVIDENCE, THE BAHAMAS**

## **Executive Summary**

The Environmental Management Plan (EMP) for the Central Bank of The Bahamas Demolition Project should be used in tandem with the Environmental Impact Assessment (EIA) for the project (July 2020). The EMP is to be utilized by the project team and contractors responsible for the project's implementation.

The Central Bank of The Bahamas (CBOB) Demolition Project involves the demolition of five (5) buildings on either side of East Hill Street on the island of New Providence in The Bahamas. The project is being executed by the Central Bank of The Bahamas.

The completed project will involve demolition of the following buildings:

1. Victoria Lodge (Royal Victoria Gardens)
2. Security booth (Royal Victoria Gardens)
3. Ministry of Health HIV-AIDS Centre (Royal Victoria Gardens)
4. Former Commission of Inquiry (Royal Victoria Gardens)
5. Former Post Office (East Hill Street)

The buildings are being demolished to enable construction of a new Central Bank headquarters, with the exception of the Post Office Building. The latter is being demolished as requested by the Government of The Bahamas. The construction of the new headquarters will be assessed in a separate Environmental Impact Assessment and that process guided by a separate Environmental Management Plan.

Employment of appropriate demolition methodologies can result in execution of the project site in a sustainable manner. Utilizing recommended mitigation measures can eliminate or minimize any negative environmental impacts resulting from project activities.

## 1.0 Introduction

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### 1.1 Objective of the EMP

The objective of the Environmental Management Plan (EMP) is two-fold:

1. To detail the mitigation measures identified through the EIA process to minimize/eliminate those potential negative environmental and social impacts of the proposed project; and
2. To ensure the demolition project utilizes best environmental practices and proceeds in an environmentally sustainable manner.

### 1.2 Scope of the EMP

The EMP involves description of environmental and social mitigation measures inclusive of a Hazardous Materials Management Plan and Hurricane Preparedness Plan.

### 1.3 Implementation of the EMP

Specific roles and responsibilities related to implementation of the EMP are outlined in Table 1-1.

**Table 1-1: EMP Roles and Responsibilities**

Name	Duties
Position: <b>Project Manager – Don Wilmott Tel: 424-8723</b>	<ul style="list-style-type: none"><li>• Coordinates EMP implementation</li><li>• Consults with outside advisers (e.g. Government, legal or medical)</li><li>• Provides or sources specialist advice in EMP matters</li><li>• Trains supervisors/line managers</li><li>• Reports serious injuries to relevant Government agency</li><li>• Reports serious environmental incidences to relevant Government agency</li><li>• Investigates incidents, injuries, accidents and spills</li><li>• Ensures injured employees are given planned rehabilitation</li></ul>

	<ul style="list-style-type: none"> <li>• Maintains all reports and registries (including incident, injury, accident and spill records)</li> <li>• Chairs weekly staff meetings</li> <li>• Ensures all new employees are inducted and managed</li> <li>• Ensures contractors are inducted and managed</li> <li>• Ensures visitors have read information about visitor safety</li> </ul>
<b>Position:</b> <b>Assistant</b> <b>Project</b> <b>Manager –</b> <b>O’Neil Moss</b> <b>Tel: 357-7488</b>	<ul style="list-style-type: none"> <li>• Supervises employees to ensure all EMP requirements are met and HSE hazards are managed</li> <li>• Ensures that weekly inspections are carried out</li> <li>• Supervises visitors and contractors</li> <li>• Trains employees in induction and safe work procedures</li> <li>• Completes incident, injury, accident and spill records (using appropriate forms)</li> </ul>
<b>Position:</b> <b>Site</b> <b>Superintendent</b> <b>–</b> <b>Ashley Ginton</b> <b>Tel: 325-3226</b>	<ul style="list-style-type: none"> <li>• Selects contractors</li> <li>• Supervises contractors</li> <li>• Ensures contractors are issued with information about on-site safety and environmental management objectives and procedures</li> </ul>

## **2.0 Project Description**

The Central Bank of The Bahamas (CBOB) plans to construct its new premises on the Royal Victoria Gardens site between East Street and Parliament Street, south of Shirley Street. Several buildings will be demolished in preparation for construction including the former Post Office building, south of East Hill Street and buildings on the Royal Victoria Gardens property, north of East Hill Street.

The objective of this new facility is to provide a modern space for CBOB to conduct its business and act as a landmark structure that will not only serve as the new location of the Bank, but as an impetus for the revitalization of the city of Nassau. The environmental impacts of the construction of the new facility will be assessed in a separate Environmental Impact Assessment. This current EMP deals only with the demolition project. The CBOB Demolition Project involves the demolition of five (5) buildings on either side of East Hill Street on the island of New Providence in The Bahamas (see Map 1). It is being executed by the Central Bank of The Bahamas. The project concept plan is shown in Figure 2-1 on page 7. The numbers of the buildings to be demolished in Map 1 correspond to the number key in Figure 2-1. Because the security booth is very small, it is grouped in the same circle with Victoria Lodge, i.e. buildings 1 and 2. The demolition schedule is attached at Appendix I.

Map 1: Central Bank of The Bahamas Demolition Project, New Providence



**Figure 2-1: CBOB Demolition Project Concept Plan**



No	Name of Building
1	Victoria Lodge
2	Security Booth
3	Bahamas National Drug Council
4	HIV-AIDS Centre
5	Curry House
6	Zion Baptist Church
7	Commission of Inquiry
8	Former Post Office

Building Legend	
Building to Remain	
Building to be Demolished	

The completed project will involve demolition of the following buildings:

1. Victoria Lodge (Royal Victoria Gardens)
2. Security booth (Royal Victoria Gardens)
3. Ministry of Health HIV-AIDS Centre (Royal Victoria Gardens)
4. Former Commission of Inquiry (Royal Victoria Gardens)
5. Former Post Office (East Hill Street)

The methodology for demolition of the former Post Office building is detailed below:

1. The demolition crew will do a safety sweep of the building every morning and afternoon. This is done to ensure no one is in the building or can get in the building. This is an extra safety precaution in case vagrants may frequent the building.
2. A separate crew will come in and remove all light bulbs and ballasts that need to be removed from the building as part of the universal waste removal. During this process, employees will be using podium ladders to reach the lightbulbs. The lightbulbs will be ground in place using a bulb grinder or taken to the demolition firm's facility and put through their bulb grinder.
3. The demolition crew will be using a fire hydrant for water supply along with a 1 ½ water hose with a fire nozzle on the end of it. A fire hydrant is located northeast of the Royal Victoria Gardens site, approximately 75 feet from the East Street-East Hill Street intersection.
4. After all waste and removable materials are cleaned from the building, the demolition crew will then begin removing the building, starting with the roof structure and collapsing it into the 3rd floor slab. Once the roof structure is safely collapsed onto the 3rd floor slab, they will then clean off the 3rd floor slab of debris in preparation for demolition of the 3<sup>rd</sup> floor. This sequence will continue until all floors are demolished and debris removed from the site.
5. The crew will fold the outside walls of the top two stories of each subject bay inward toward the 2nd floor. They will start cleaning the 2nd floor slab of the wall debris. After the 2nd floor slab is clean, they will start removing 2nd floor slab down to the 1st floor, loading trash and debris out into waiting trucks. This will leave the ground floor slab as last to come out, after the entire building is gone. All material will be disposed of at approved disposal sites.
6. Once the lower structures are removed, the demolition crew will then start on the seven-storey portion of the building. This portion will be done using a high reach excavator that has a reach of 92' foot with concrete processor on the end.
7. The high reach will start two floors down from the top level. This will allow us to do the building bay by-bay column line by column line collapsing the build in a controlled manner, working the building from east to west collapsing. This will allow the crew to control the north wall, so it does not end up in the roadway (pictures of the high reach excavator are provided at Figure 2-2).
8. The 336 excavators will be used to clear the way for the high reach to continue to drop the building throughout this process.
9. Once all construction debris and trees are gone and only a bare slab remains, the demolition crew will then start removing the slabs and footers. This will be done north to south.
10. After all concrete and asphalt are removed and hauled off, they will rough grade the site.
11. All this work will be done with a 336, 345 cat excavators and one 450 Komatsu high reach excavator.

The methodology for four (4) of the buildings is detailed below:

1. Upon completion of the former Post Office building demolition, the other four buildings will be cleaned of waste and removable materials.
2. With equipment located at the Royal Victoria Gardens site, buildings will then be demolished to slab level in a manner that allows debris to collapse within the site.
3. Victoria Lodge and the Security Booth will be demolished first followed by the Commission of Inquiry building. The HIV-AIDS Centre will be demolished last.
4. Debris from demolition will be placed in the parking lot at the Royal Victoria Gardens site and will then be loaded and transported to the disposal site.

### 3.0 Proposed mitigation measures

Table 3-1 below summarizes the mitigation measures that are recommended to minimize or eliminate any negative environmental impacts from the project.

**Table 3-1: Summary of Environmental Mitigation Measures**

	<b>Mitigation Measures</b>
Materials	<p>Any toxic or hazardous chemicals to be utilized on site can be done so according to Material Safety Data Sheet (MSDS) guidance and safety protocols can be established by project management.</p> <p>Demolished building materials containing hazardous materials, such as mold, will be safely removed and properly disposed of to prevent any risks to human health.</p>
Air quality and dust	<p>Impairment to air quality can be reduced when no illegal construction activities occur during this project.</p> <p>Construction equipment should be properly maintained to ensure they do not impair air quality.</p> <p>Construction methodologies and best practices can be employed to minimize generation of quantities of dust that can impair air quality including watering of the site.</p>
Waste management	<p>All waste can be properly disposed of according to regulations and standards of the Department of Environmental Health Services (DEHS) and the Water and Sewerage Corporation (WSC).</p> <p>Waste management will need to include proper disposal of any hazardous building materials from demolition.</p>
Landscape and visual	<p>Protected trees removed should be replaced at a ratio of 2:1 as per the 2010 Forestry Act or as directed by the Forestry Department, Ministry of Environment &amp; Housing.</p> <p>All invasive plants and trees on the property will be removed.</p> <p>An effort should be made to minimize clearing of land to the footprint of any planned new buildings.</p>
Water resources	<p>Chemical and fuel management of the site will ensure that groundwater and freshwater resources are not negatively impacted. Spill response protocols can be established for</p>

	<p>effectively dealing with spills in the event of an accident to minimize any pollution of water resources.</p> <p>Hazardous waste from demolition will be properly disposed of.</p> <p>Potable or fresh water will be provided by the Water and Sewerage Corporation, so there will not need to be extraction of groundwater resources.</p>
Ecology	<p>Efforts can be made to minimize negative impacts to all remaining vegetation by preserving as much of it as possible during demolition. This can be achieved through selective clearing of the site rather than bulldozing the entire area. Protected tree species removed during clearing should be replaced at a ratio of 2:1 or as directed by the Department of Physical Planning.</p> <p>Native trees and plants should be maintained wherever possible, especially where they are clustered so that they can continue to function as wildlife corridors.</p>
Avifauna	<p>While noise levels during demolition may deter birds from the area, it is expected that once demolition is complete that birds will return. There are sufficient vegetated areas neighbouring the project site that can be utilized by birds during active demolition.</p> <p>Every effort will be made to maintain protected trees on the project site to be utilized by birds when demolition is not occurring. Protected trees will be marked prior to construction so they can be avoided.</p> <p>Staff will be advised on the importance of not interfering with or harming bird species which are all protected under Bahamian law.</p>
Noise and vibration	<p>Demolition activities should be for a limited time period to minimize disturbance to birds and other animals at the project site. Once construction is completed in as short a timeframe as possible, the animals should return to habitats they normally utilize.</p> <p>Construction workers will wear appropriate PPE (i.e. earplugs or earmuffs). Nearby residents are not expected to be exposed to high noise levels as there will be no work occurring during the evening and night. Nearby businesses</p>

	<p>are a sufficient distance away to reduce their exposure to high noise levels.</p>
Traffic and transport	<p>All workers utilizing vehicles and equipment should have adequate training and skills in their proper and safe handling.</p> <p>Equipment to be utilized for this project moving from other sites should be inspected and cleaned, as necessary, to ensure they do not introduce invasive plant material, such as seeds.</p> <p>Alternative access routes will be provided for businesses so that their patronage can continue.</p>
Contaminated land	<p>Any toxic or hazardous chemicals to be utilized on site will be done so according to Material Safety Data Sheet guidance and safety protocols as established by project management. Staff should be trained in spill response measures to effectively handle such incidents.</p> <p>Hazardous building materials from demolition will be safely handled and properly disposed of.</p>
Occupational health and safety	<p>Workers will be provided with appropriate protective personal equipment (PPE) for the assigned tasks. Workers should wear respirators (P2 or higher) and gloves when handling materials with mold on it.</p> <p>All workers will receive training in proper handling of equipment and materials as a part of their orientation before being admitted to the site during demolition and before starting work on site.</p> <p>There will be regular reinforcement of occupational health and safety procedures during weekly meetings. Information on health and safety procedures (e.g. Material Safety Data Sheets) will be accessible to staff during working hours. At least one staff member will be assigned to ensuring health and safety procedures are being followed during demolition activities.</p> <p>Workers will adhere to COVID-19 Emergency Orders requirements inclusive of wearing masks and social distancing.</p>

Impacts on neighbouring communities	<p>Regular communication with neighbouring businesses and communities will occur so they are informed of disruptions to traffic and can plan accordingly.</p> <p>They will also be advised when noise levels may be elevated so they can choose to leave the area or wear appropriate protective equipment, such as noise-cancelling headphones. Elevated noise levels during demolition should be limited to the hours of 7 am to 5 pm so as not to disturb residents during sleeping hours.</p> <p>The site should be managed following best management practices to reduce or eliminate impacts related to air pollution as well as land and groundwater contamination, so there are no long-term health impacts on communities.</p>
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The Environmental Management Plan (EMP) will involve implementation of the overall mitigation measures as identified in Table 3-1 above.

Best practices will be employed in demolition as prescribed by the United States Environmental Protection Agency for reducing, reusing and recycling construction and demolition materials. The focus will be to salvage usable materials in an effort to cut waste and reduce disposal. As a Small Island Developing State, land is a limited resource in The Bahamas. Having vast land areas for landfills is not feasible. Any means to reduce waste in construction and demolition to eliminate the need to dispose of it in a landfill should be pursued.

Items that may be salvageable from demolition of the five buildings include:

- Bricks
- Dimensional lumber
- Doors
- Cabinets
- Light fixtures
- Sinks
- Toilets
- Windows
- Wood flooring

In addition to the mitigation measures, the plan also details other aspects of the project, such as handling of hazardous materials, fuel management, transport management, hurricane preparedness plan, and emergency response plan. Best environmental practices (BEPs) are incorporated into the various mitigation measures.

### **3.1 Air quality**

The main source of air pollution will be dust generated during construction. Dust will be kept down as needed, including during non-working hours. Contractor will utilize a water truck and/or fire hose attached to a local hydrant during demolition operations. Contractor will direct a localized fine water spray to the source of demolition activities, as required, thereby reducing airborne dust particles. To minimize the run-off of water, the water supply will be used only when necessary. A proper backflow device will be installed at the hydrant locations, if utilized.

Soils at the site, haul roads and other areas disturbed by construction and materials stockpiled for the project will be treated by water sprinkling to control dust.

The watering schedule will be determined by an evaluation of the air monitoring and meteorological data, site conditions, and site activities. The following measures will be taken to mitigate for any potential air pollution from dust during construction:

1. Watering - Water all active construction areas at least once daily and more often during windy periods. Active areas adjacent to residences will be kept damp at all times.
2. Wind screen – A wind screen will be applied to the perimeter fencing around to project site to aid in dust control.
3. Trucks - Cover all hauling trucks or maintain at least 2 feet of freeboard.
4. Pavement - Apply water at least twice daily to all unpaved access roads, parking areas, and staging areas.
5. Sweeping - Wet mopping or wet sweeping will be used instead of dry sweeping. All paved access roads, parking areas, and staging areas will be swept daily. Adjacent streets will be swept daily if visible soil material is deposited onto the road surfaces.
6. Stockpile of dusty materials – Stockpiles of sand, rock and excavated material shall be sprayed with water once daily to keep the surface wet.
7. Loading, unloading or transfer of dusty material – All dusty materials will be sprayed with water as necessary prior to loading, unloading and transfer operation to prevent dust from becoming airborne. The exception is cases where the moisture content of dusty materials is a matter of concern. Traffic speeds will be limited on any unpaved roads to 15 mph.
8. Excavation or earthmoving – The working areas of any excavation or earthmoving operation shall be sprayed with water immediately before, during and immediately after the operation to keep the surface wet.
9. Emissions from construction equipment – All construction equipment shall undergo regular maintenance so that any emissions due to malfunctioning or operational inefficiencies are minimized.
10. Suspension of work - Excavation and grading activity will be suspended when winds (instantaneous gusts) exceed 25 mph.
11. General site tidiness – The site shall be cleaned and moistened frequently to minimize fugitive dust emissions.

### 3.2 Noise pollution

Noise pollution sources at the site during construction will include heavy equipment being used during demolition as well as increased traffic to and from the site. Any noise generated is expected to be intermittent and temporary. Noise generation is expected to be limited to daytime hours (i.e. 7 am to 5 pm) to minimize disturbance to residents.

The following measures will be taken to mitigate for any potential noise pollution during demolition:

1. Limit the amount of noise-generating equipment to be used.
2. Limit the amount of noise-generating equipment to be used simultaneously.
3. Use silenced or relative Quality Powered Mechanical Equipment (PME).
4. Cover noise-generating equipment with acoustic enclosures, if necessary.
5. Erect temporary and movable noise barriers next to noise sources to shield down the noise emission, if necessary.
6. Position noise-generating equipment or activities away from sensitive receivers and at locations where existing structures on site can act as noise shields.
7. Switch off noise-generating equipment when not in use.
8. Ensure proper maintenance of noise-generating equipment.

### 3.3 Landscaping

Protected trees observed on the site were:

- Horseflesh (*Lysiloma sabicu*)
- Lignum vitae (*Guaiacum sanctum*)
- Mahogany (*Swietenia mahogoni*)
- Silk cotton (*Ceiba pentandra*)

These cannot be removed without a permit from the Forestry Department. Only the Department can give a waiver for the replacement ratio of 2:1 for replanting of removed trees.

Construction staff education will include identification of protected trees that should not be touched as well as invasive plants and trees that should be removed. Any invasive plants and trees on the site will be removed.

Equipment and vehicles being moved from one site to another have the potential to transport invasive plant species. All equipment and vehicles should be inspected and any plant material (e.g. seeds, leaves, flowers) removed before they arrive at the project site.

### 3.4 Avifauna

Every effort will be made to maintain protected trees on the project site to be utilized by birds when demolition is not occurring. Protected trees will be marked prior to construction so they can be avoided.

Bird species documented on the project site or known to frequent it include:

<b>Common Name</b>	<b>Scientific Name</b>
Smooth-billed ani	<i>Crotophaga ani</i>
White-crowned pigeon (Protected)	<i>Patagioenas leucocephala</i>
Laughing gull	<i>Leucophaeus articilla</i>
Rock pigeon	<i>Columba livia</i>
Common ground dove	<i>Columbina passerina</i>
Green heron	<i>Butorides virescens</i>
Northern mockingbird (Invasive)	<i>Mimus polyglottos</i>
Bahama parrot	<i>Amazona leucocephala</i>

All endemic and native bird species are protected under the Wild Birds Act of The Bahamas. No staff should harm or interfere with bird species observed on the site.

If nests, bird eggs or injured birds are found on the site, staff should not remove them. They should contact the Bahamas National Trust at **393-1317** or **601-7432** whose wildlife officers are trained in handling and transfer of birds, their eggs and nests, if necessary.

### **3.5 Fuel management**

Fueling on site can result in spills of gasoline, diesel and oil, which are common sources of groundwater pollution and are costly to clean up. Mitigation measures for fueling include:

1. Establishment of a designated fuel dispensation area on the site away from any known groundwater resources.
2. Topping off practices when fueling should be discouraged. Tanks should not be filled beyond 95%. Impervious fireproof containment trays should be used when filling small cans to contain any possible spills. Easy to read signs should be posted at the fueling area to explain proper fueling procedures.
3. To prevent overflow spills, automatic back pressure shut-off nozzles should be installed on the fuel pump discharge hoses. Fuel nozzle triggers that are used to hold the nozzle open without being held should be removed if automatic shut-offs are not available.
4. Drain pans should always be used during fueling in the event of a fuel spill or leak.
5. The fueling system should be briefly inspected daily and thoroughly inspected once a week by fuel attendant(s) for leaks and overall soundness.
6. All spent fluids will be collected for either storage or recycling.
7. A petroleum spill response plan for the project site is provided at Appendix II. The plan provides guidance in the event of a spill to ensure proper petroleum containment. Components of the spill response plan include who to notify when a spill occurs, immediate spill response actions, a contact list for response communications, and a response chain-of-command on the site.
8. Easy-to-read signs should be posted at the fueling station informing users what to do to contain fuel and oil in the event of a spill. Signs should also include a “No Smoking” sign to avoid risk of explosion.
9. There will be a clearly identified spill response container with spill response equipment near the fuel delivery area. This container will house appropriate containment and control materials, such as

absorbent pads, a fire extinguisher, a copy of the Spill Response Plan, and the emergency contact list. This container should be clearly marked and easily accessible in order to quickly react to any potential spills. An inventory of equipment will be taken monthly or after use and a list of items needing replacement will be submitted for purchasing immediately. Used absorbent materials should be disposed of offsite by a licensed company.

10. All appropriate staff should be trained in proper fueling, proper maintenance techniques, and the implementation of the spill response plan at least bi-annually.

### **3.6 Sewage and wastewater management**

Sewage generated by portable toilets during demolition should be pumped away and disposed of at a DEHS-approved facility by a specialist subcontractor. One (1) toilet will be provided on site for ten (10) workers. The toilets will be changed out twice weekly on Wednesday and Friday/Saturday to maintain sanitary conditions on site. One (1) handwashing station or station with alcohol-based hand sanitizer will be provided for workers.

The Water and Sewerage Corporation (WSC) may outline methodologies for disposal of wastewater generated during construction. There will be no drainage of sewage or wastewater on land comprising or near the project site at any time. All activities related to sewage and wastewater management during demolition will be subject to approval of respective Government agencies, including the WSC and the Department of Environmental Services (DEHS).

Any waste oil will be collected in a dedicated oil container and delivered offsite by a local waste management company for disposal and recycling.

### **3.7 Solid waste management**

The dumpster used for demolition waste will also be utilized by construction staff to dispose of litter (e.g. food containers). Prohibited waste that should not be placed in the dumpster include waste oil and used absorbent materials; these should be disposed of separately as this type of waste cannot go into the landfill. In order to maintain a clean site, there should be morning and afternoon “walk-throughs” of the project area by custodial attendants to pick up any stray litter.

A licensed local waste management company will dispose of solid waste from the site during construction and operation in accordance with DEHS standards and only with their approval. Disposal of solid waste from construction and operation will be done at a licensed facility (likely New Providence Ecology Park) in compliance with DEHS requirements.

A registry of all waste streams which are removed from the site will kept on site and made available to Government officers when requested during inspections. Weekly monitoring reports submitted to DEPP should also contain a copy of waste registry for that week.

### **3.8 Hazardous materials handling**

All hazardous materials brought on site should be accompanied by material safety data sheets (MSDS). These sheets detail proper handling, storage and disposal techniques for use of hazardous materials as well as

proper treatment if persons are exposed to the materials. All MSDS should be accessible to staff who will be in contact with or using the hazardous materials, so they understand how to safely use them.

The only hazardous demolition waste identified is mold; this waste will be disposed of in dumpsters and then taken to the landfill in covered trucks to be properly disposed of.

A small storage area will be designated at the site in the event that any waste oil or used spill clean-up materials need to be stored before being properly disposed of. This storage area should have a disposal container that is covered, made of inflammable material, sealed to prevent leaking, and positioned on an impervious surface as far from any water as possible. Appropriate spill containment and clean-up equipment should be easily accessible near waste oil storage area.

Construction staff should be trained regarding proper handling, storage, transfer, and disposal procedures for hazardous waste materials, inclusive of mold, waste oil and used spill clean-up materials.

Disposal of all hazardous waste generated by the project will occur offsite by a licensed contractor at a licensed facility as per DEHS requirements. A Hazardous Material Management Plan is provided at Appendix III along with the hazard analysis completed under the EIA for the project.

### **3.9 Traffic management**

Traffic management on the site will include:

1. Designated haul routes for commercial vehicles.
2. Maintenance of low speeds for driving on site.
3. Traffic control on site and on the road directly in front of the project site during times of heavy commercial vehicle and/or heavy equipment traffic to prevent accidents with private vehicles.
4. Wheel wash or vehicle wash down area near/at site exit.
5. Regular cleaning of roads.
6. Securing the site (e.g. fencing) to prevent pedestrians, particularly children, from traversing the site.
7. Ensuring all workers wear high visibility vests so that drivers of commercial vehicles and heavy equipment can see them.
8. Training all workers in traffic hazards on site in an effort to avoid injury and loss of life.

The traffic diversion plan is shown below in Figure 3-1.

Figure 3-1: Woslee traffic diversion plan



- - - Hoarding
- Direction of Travel for Loaded Trucks  
Trucks will enter site from East Street, receive load and exit with load onto Market Street
- B Gates to remain lock. To be opened only for demolition works



### 3.10 Hurricane preparedness plan

The purpose of the Hurricane Preparedness and Response Plan is to identify the actions that will be taken to reduce or eliminate long-term risk to people and property, and to respond to natural disasters in the form of tropical storms, hurricanes, and coastal flooding. Project management should ensure that all staff are knowledgeable and equipped to execute the Hurricane Preparedness and Response Plan when necessary. Preparation for hurricanes and tropical storms must be an ongoing activity at the site, and staff should be informed well in advance of their responsibility during a storm.

Key preparation activities are outlined below.

1. **GENERATORS:** Check all generators for proper operation (change oil, test batteries, start and run, run under load, ensure plug-in receptacles in good working order).
2. **EMPLOYEE CONTACT:** Update Employee Contact List. Ensure all staff members have a copy and understand the procedures for calling in or reporting to work post-hurricane.
3. **FACILITY INSPECTION:** The designated Manager conducts complete site and building/facilities inspection no less than weekly to ensure site is free from clutter. The designated Manager should initiate and direct the removal of all excess supplies and equipment from the site.
4. **HURRICANE PLAN:** The plan should be printed and/or emailed to all staff. The designated Manager will ensure that all staff are familiar with the plan and its preparation and response procedures as well as the location of equipment and supplies necessary for preparation and response.
5. **SUPPLIES:** The designated Manager should ensure adequate supplies of tools and any equipment needed to deal with preparation and recovery are on-hand at the site (batteries/radios, gas/diesel, rain gear, bottled water).
6. **VEHICLES:** All vehicles (including trucks and cars) should be in good working order and have fuel topped off and/or batteries charged. Staff should understand the procedures for relocating/securing any portable equipment to designated safe areas.

### GENERAL

#### A. Objective:

To provide clear and concise procedures for staff to follow in the event of a hurricane or tropical storm. To manage, maintain security, and control the operation of site, building and/or facilities during an announced emergency situation.

#### B. Background:

The project site may not be a safe location during a hurricane or tropical storm, depending on the direction and strength of the storm. It is highly recommended that vehicles and portable equipment and supplies be

relocated well in advance to safer locations in order to protect them and neighbouring residents from damage of flying debris from demolition activities at the project site. The following procedures will enhance the project's ability to protect the lives and property of staff and neighbouring businesses and homes, and safeguard facilities.

*C. Preparation:*

Every designated manager should have an individual Hurricane Plan, designed specifically for their area of responsibility. This Plan should include the location of alternate storage for their vehicles and equipment; a checklist of key procedures to be followed to prepare for a storm; and necessary gear and supplies to help secure their area of responsibility on short notice.

The management team should designate an Operating Post for the coordination of operations, communication, and emergency response. All staff shall be familiar with the emergency procedures.

**HURRICANE ACTION PLAN**

*D. Hurricane Watch*

- 1) All staff are required to know by definition the status of a weather emergency as differentiated between a Hurricane Advisory, Watch, Warning, etc.
- 2) All staff will be prepared to respond when called upon to report to work. Proper planning will ensure that personnel needs are met, while still meeting the need to respond to an emergency situation at the project site.
- 3) At designated staging areas, all emergency equipment and supplies (i.e. pumps, generators, vehicles, etc.) are to be at full operational capacity and ready to move. Batteries are fully charged; rain gear and other safety equipment stocked and in full working order.
- 4) At the Operating Post, the information cycle is started – the designated Manager shall contact the relevant local hurricane preparedness agencies (e.g. NEMA) and verify contact information. The Operating Post will communicate with staff – directly, by voice announcement, by posted notice, by phone, and/or by passing the word, the proposed order of an evacuation plan will be announced.
- 5) All trash and debris will be removed from containers to prepare those containers for receiving additional trash. Parking and common areas should be checked for removal of unnecessary equipment and materials.
- 6) Notification is made to other personnel/contractors if there is need to relocate any vehicles, equipment, or property. Employees are designated at the facility to handle the safeguarding, evacuation, or relocation of the above.
- 7) Commence securing buildings, vehicles and other property. Only basic facility accesses are left open.

- 8) Staff should report essential information to the designated Manager and receive instruction as to communications, controls, phone numbers, etc.
- 9) The designated Manager should rotate staff home to address personal needs. Some staff members will be required to report back to work, scheduled in selected groups at selected locations, for continuing emergency operations. It is imperative that staff report to work as instructed.

*E. Hurricane Warning*

- 1) All off-duty staff must respond immediately and report to work if requested to do so. Personal needs should now have been met and all available personnel will be meeting the need for necessary emergency work at the site.
- 2) Emergency equipment and supplies are positioned to be mobilized for fast use. Access roads are cleared of movable objects, garbage, and debris. Loose items that cannot be removed are secured, tied down, etc.
- 3) Keep vehicle traffic flowing in a smooth and orderly fashion.
- 4) Complete securing building and facilities; finish safeguarding property from flood areas; secure areas once completed.

*F. Facility Evacuation*

- 1) Upon local directive, building and facilities are secured and evacuated. Off-duty staff are dismissed, with instruction to establish contact with the designated Manager as soon as possible after the storm for instruction. The building and facilities will be shut down for the duration of the emergency. Begin planning for “after the storm” action.

**3.11 Emergency response plan**

This Plan is designed to address the most likely emergencies which will occur on site due to activities and material utilization and is detailed in Appendix IV.

**3.12 Worker health and safety**

As a part of the site-specific induction training, all staff and subcontractors should undergo safety training to ensure their safety on site. Safety training will include best practices for working:

- With hazardous materials
- At heights
- In confined spaces
- With heavy equipment
- Under COVID-19 Emergency Orders

During staff orientation and regular training sessions, slideshows and PowerPoint presentations can be used to educate staff about health, safety, environmental and social issues. All new staff will participate in site-

specific induction training delivered by the designated manager. The training should cover issues inclusive of legislation, regulations, environmental management, staff duties and responsibilities, mitigation measures and the EMP. Training will culminate in testing of staff's knowledge on health, safety, environmental and social management issues.

There should also be weekly staff talks (also referred to as Toolbox talks) regarding mitigation measures for any negative environmental and social impacts. All staff should be required to attend. Topics will include, but not be limited to:

- Air pollution control
- Waste reduction and management
- Noise control
- Good housekeeping practices
- Handling of hazardous materials
- Emergency preparedness

The weekly monitoring report to DEPP needs to include:

- A record of staff who have undergone orientation training.
- A copy of weekly staff (Toolbox) talks with signatures of staff that participated.

Forms to be completed for each training are provided at Appendix V

Workers should be required to wear appropriate personal protective equipment (PPE) and be trained in how to properly wear and/or use this equipment. Workers should wear respirators (P2 or higher) and gloves when handling materials with mold on it.

Workers should also be trained in incident or accident response, including first aid.

The presence of fuel can place the site at high risk for potential fire-related accidents. Such situations may require an immediate response, whereby waiting for emergency personnel can lead to dire circumstances. There should be adequate and visible signage posted about first aid and fire-fighting equipment at the site. Safety precautions and information must also be posted. The following first aid and fire safety guidelines should be followed:

- a) The fire-fighting equipment during construction must at least include the presence of fire extinguishers, but could also include water hoses and fire carpets.
- b) The fire-fighting equipment must be easily identified and accessible 24 hours a day throughout both phases and indicated on site maps.
- c) Fire extinguishers must be present at the fueling station, near hazardous waste storage facilities and at locations where high temperature work is going on.
- d) First aid equipment must be present at the construction site at locations known to all staff.
- e) Public or emergency telephones at or very near the site must also be available 24 hours a day, and clearly indicated on the site maps.

## **COVID-19 Procedures**

The guidance provided under the Bahamas Emergency Powers (COVID-19 Pandemic) Order 2020 and from the Ministry of Health include:

1. Construction companies are allowed to operate between the hours of 7 am to 5 pm (Monday to Friday) and 7 am to 1 pm (Saturday).
2. A distance of six (6) feet between individuals should be maintained.
3. Each individual should wear a mask covering their nose and mouth.
4. Hands should be washed frequently with soap and water. If running water and soap are not available, an alcohol-based hand sanitizer should be applied regularly.
5. If you have to sneeze or cough, do so into your elbow or a tissue. If you use a tissue, discard the tissue into a closed bin and immediately clean your hands with soap and water or an alcohol-based hand sanitizer.
6. Disinfect equipment or surfaces that are touched frequently.
7. If an individual experiences the following symptoms, he/she should stay home from work and contact the Ministry of Health or a medical doctor for guidance on medical treatment and testing:
  - a. Fever (temperature of 100.4°F or higher)
  - b. Chills
  - c. Cough
  - d. Shortness of breath or difficulty breathing
  - e. Fatigue
  - f. Muscle or body aches
  - g. Headache
  - h. Loss of taste or smell
  - i. Sore throat
  - j. Congestion or runny nose
  - k. Nausea or vomiting
  - l. Diarrhea

A copy of the current Emergency Orders can be found at Appendix VI.

### **3.13 Public awareness and communication**

Prior to demolition commencing, there will be a series of consultations through small group discussions with neighbouring businesses and residents. These consultations will provide an opportunity for these stakeholders to be informed about what is planned, to ask questions and to highlight issues that they may feel need to be addressed. Every effort will be made to engage those residents living or working in close proximity to the project site as they will be most impacted by project activities. Outreach will be through television, newspaper and radio announcements to inform the public about the project and inform them of mechanisms by which they can participate in dialogue with project staff.

Once demolition commences, the public will be advised of instances of inconvenience or disturbance, such as changes to traffic routes and times of excessive noise. Signage will also be utilized on and near the site to advise of things, such as traffic diversions and active construction areas. At least one sign needs to include information about the onsite contractor inclusive of a telephone number and email address for contacting

them. Contact information should also be provided for DEHS, DEPP and Ministry of Works. Examples of other signage on site are provided below in Figure 3-2.

**Figure 3-2: Signage for Demolition Site**



The public, especially neighbouring residents, must be informed of the mechanism for reporting concerns or problems and this mechanism must be easily accessible and responsive. Options for this mechanism include a telephone hotline, website or contact person. When concerns are communicated, they should be acknowledged within 24 hours and resolved within 48 hours, when feasible. If it is not feasible to resolve a matter within 48 hours, persons should be advised of this and regularly updated on progress in addressing their concerns.

The complaints form in Appendix VII or a similar version should be used to record any complaints received about the project. All complaints should be recorded, including:

- Date of complaint;

- Complainant (name and contact information);
- Nature of problem including location;
- Time;
- Number, gender and age of people impacted; and
- Costs associated with the problem or incident, if possible (e.g. cost of doctor's visit and medication; cost of repair to vehicle or third-party property, etc.)

### **3.14 Environmental and social monitoring**

The monitoring and reporting regime for the project during demolition will include weekly site inspections which will be conducted by a designated staff member or subcontractor. These inspections will provide a means to enforce specific environmental and social management measures. Site inspection observations and results will be documented using site inspection forms, which will be submitted to the Project Manager and Construction Manager. These forms will also be submitted to the DEPP on a weekly basis. A possible template for the inspection form is provided in Appendix VIII.

If non-compliance is found during an inspection, appropriate action as per the EMP will be implemented. The inspection will not be limited to the project site, but also observations of environmental and social management issues in areas adjacent to the project site, which are likely to be impacted, directly or indirectly, by site activities during demolition.

It should be noted that the DEPP may also conduct unannounced site inspections to ensure compliance with the EMP. The 2019 Environmental Planning and Protection Act gives DEPP the power to issue a cease and desist order for non-compliance with conditions of the Certificate of Environmental Clearance.

#### **4.0 Conclusions**

Employment of appropriate design and planning methodologies can result in demolition in a sustainable manner. Utilizing the recommended mitigation measures can eliminate or minimize any negative environmental impacts that may occur during demolition.

The EMP should be utilized to guide demolition activities on the project site.

The Central Bank of The Bahamas has expressed its commitment to implementing the recommended mitigation measures and executing the project in a manner that respects the natural resources of the site and is environmentally sustainable.

## References

Centers for Disease Control and Prevention. (2020). *Symptoms of Coronavirus*. Retrieved from <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>

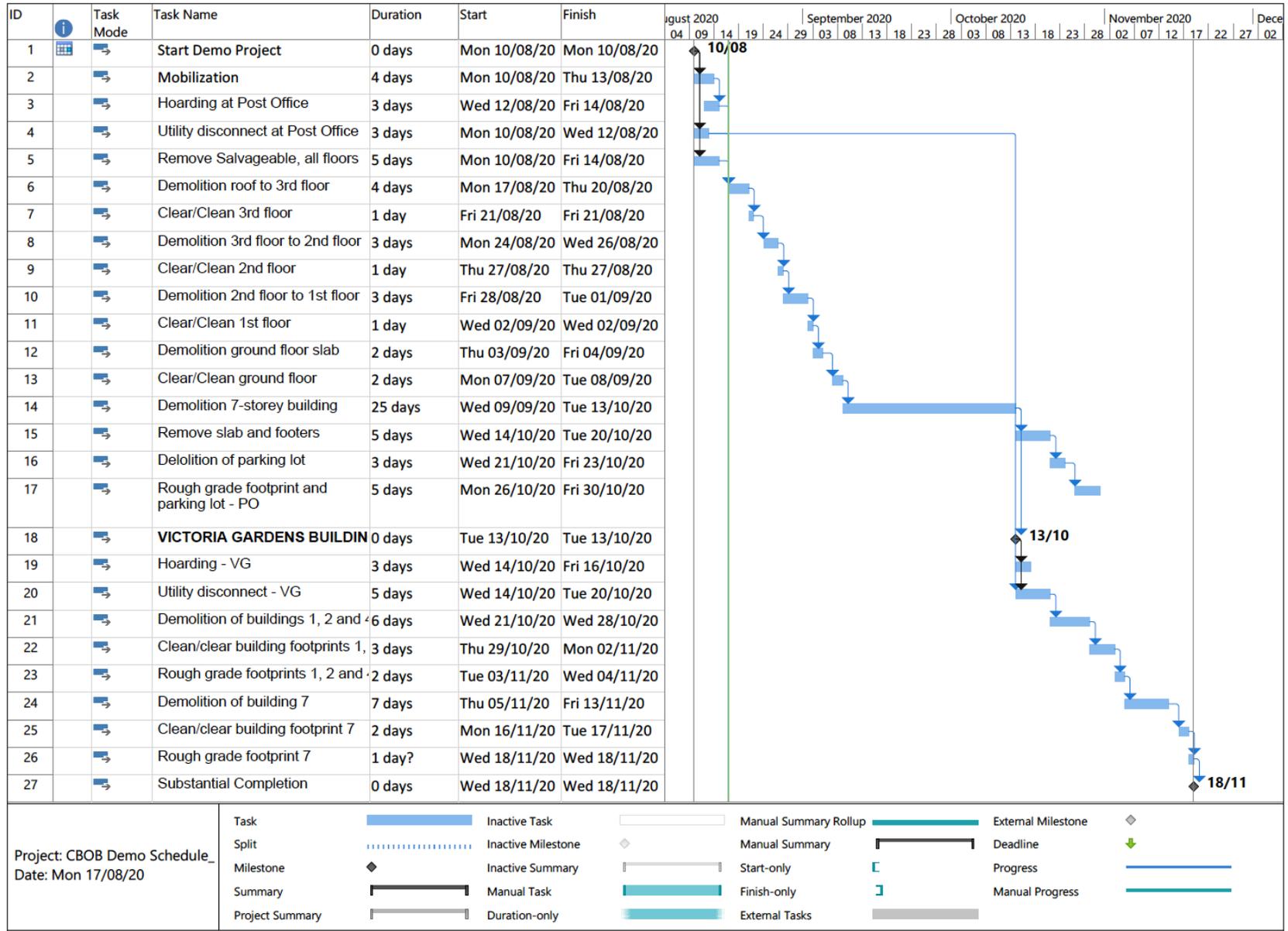
Government of The Bahamas. (2019). *Environmental Planning and Protection Act*. Nassau: Bahamas Government Publications.

Ministry of Health. (2020). Novel Coronavirus (2019-nCoV) website - [http://www.bahamas.gov.bs/wps/portal/public/novel%20coronavirus%20\(2019-ncov\)/](http://www.bahamas.gov.bs/wps/portal/public/novel%20coronavirus%20(2019-ncov)/)

SEV Consulting Group. (2020). *Environmental Impact Assessment (EIA) for Central Bank of The Bahamas Demolition Project, New Providence*. Nassau: SEV Consulting Group.

United States Environmental Protection Agency. (2018). *Best Practices for Reducing, Reusing, and Recycling Construction and Demolition Materials*. Retrieved from <https://www.epa.gov/smm/best-practices-reducing-reusing-and-recycling-construction-and-demolition-materials>

## Appendix I: Demolition Schedule



## **Appendix II: Petroleum Spill Response Plan**

Spills and leaks that occur during vehicle and equipment fueling can contribute hydrocarbons, oil and grease, as well as heavy metals to stormwater runoff. The following management practices will be implemented to help prevent fuel spills and leaks. A reduction in the potential for pollutant discharge will be done through source control pollution prevention and best management practices (BMP) implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

The spill response plan contact information:

### **Emergency Agencies**

Fire Department **911**

First Aid Responder **919**

Police Department **911**

### **Administrative Agencies**

Department of Environmental Planning and Protection **322-4546**

Department of Environmental Health Services **322-8037 or 322-2295**

The spill response team is comprised of the following staff with their names and cell phone numbers provided.

- Incident Commander (IC): Don Wilmott **424-8723**
- First Alternate IC: O'Neil Moss **357-7488**
- Second Alternate IC: Ashley Ginton **325-3226**

### **SPILL CONTROL PRACTICES**

In addition to the good housekeeping and material management practices discussed in the previous sections of this EMP, the following practices will be followed for spill prevention and cleanup:

- Manufacturer's recommended methods for spill cleanup will be clearly posted and staff will be made aware of the procedures and the location of the information and clean-up supplies.
- Materials and equipment necessary for spill cleanup will be kept in the designated storage area onsite. Equipment and materials will include, but not be limited to, brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- Staff will wear appropriate protective gear to prevent injury from contact with a hazardous substance.
- Employees will be educated about spill prevention measures.
- All spills will be cleaned up immediately after discovery. Spills are not cleaned up until all materials used in the cleanup are picked up and properly disposed of.

- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with petroleum products, which can be hazardous.
- Spills of petroleum products will be reported to the Incident Commander and relevant Government agencies, regardless of the size.
- The spill prevention plan will be adjusted, as necessary, to include measures to prevent spills from reoccurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included. This information is usually documented in a spill incident report form. The format for the spill incident report form is provided on page 30.
- The Incident Commander is responsible for spill prevention and cleanup coordination. He will designate at least two other staff members who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of responsible staff members should be posted at the project site or main building's administrative offices.
- A stockpile of spill cleanup materials will be stored where it will be readily accessible.

**Petroleum Spill Report Form**

Reporting Party's Name:			
Address/City/State:			
Phone:			
Responsible Party's Name (if known):			
Address/City/State:			
Phone:			
Date of Spill:		Time:	
Location:		Product spilled:	
Estimated quantity:		Discharge stopped or contained?	
Source or cause of spill (if known):			
Actions taken:			
Injuries/fatalities/evacuations?			
Environmental damage:			
List of equipment used:			
Disposal site/facility for used absorbents:			
<b>Oil Spill Notifications</b>			
<b>Organization</b>	<b>Phone</b>	<b>Time Contacted</b>	<b>Case Number</b>
Fire Department			
Spill response contractor			

## **Appendix III: Hazardous Material Management Plan**

This plan outlines best management practices for hazardous materials that may be found or generated on site.

### Good Housekeeping

- An effort will be made to store only enough product required to do the job.
- All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
- Products will be kept in their original containers with the original manufacturer's label.
- Substances will not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all of a product will be used before disposing of the container.
- Manufacturers' recommendations for proper use and disposal will be followed.
- The Site Superintendent will inspect the site daily to ensure proper use and disposal of materials onsite.

### Hazardous Products

If hazardous materials are required, then the guidelines below will be followed:

- Products will be kept in original containers unless they are not resealable.
- Original labels and material safety data sheets will be retained for important product information.
- If surplus product must be disposed of, the manufacturer or local recommended methods for proper disposal will be followed.

### Petroleum Products

All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chances of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled.

## **PREVENTION OF POLLUTION OF GROUNDWATER**

To ensure that all efforts are undertaken to ensure that the groundwater is not impacted during construction the following actions will be taken:

- All diesels, fuel and other toxic materials shall be securely bounded in welded steel trays whose capacity is at least 110% of the maximum stored volume of the fuel. Bunds shall be inspected and cleaned out at regular intervals.
- Any bulk tank with an integral delivery hose and nozzle shall have a means of securing and padlocking at the nozzle above the maximum fill level and the nozzle shall be locked in this position when not in use.
- A fueling area shall be designated adjacent to the storage tanks and this shall be comprised of a concrete apron laid to falls, draining into the steel tray or leak proof sump.
- Generator and other static plants shall be of a type supplied with integral bunds or shall be located within a welded steel tray of appropriate volume.

- All mobile plants such as vehicles, pumps and excavators used on site shall be in good condition and free from engine, lubrication and hydraulic oil leaks and shall have steel dip trays placed beneath them when not in use.
- All containers for chemicals and lubricants used on site shall be stored in trays of steel or other approved materials of appropriate volume.

If there is a major Spill, call the following agencies:

- Fire Department (should fire be possible) **911**
- Department of Environmental Health Services **322-8037 or 322-2295**
- Department of Environmental Planning and Protection **322-4546**

The project will involve disposal of building materials contaminated with mold. A record of removal and disposal of these materials must be kept on site and submitted to the DEPP with weekly monitoring reports. The hazardous material reporting form is provided on page 37. The results of the hazard analysis of the buildings to be demolished is included beginning on page 38.

## Hazardous Material Reporting Form

Description of hazardous material:	
Weight or volume of material disposed of:	
Name of licensed contractor disposing of material:	
Signature of licensed contractor:	
Date of disposal:	

A copy of the signed receipt from the licensed facility where the hazardous material was disposed of should be attached to this form.



# EXPANDED FUNGAL REPORT <sup>TM</sup>

## Prepared Exclusively For

SEV Consulting Group  
Chesapeake Road  
PO Box N1416  
Nassau,  
Phone:242-557-9416

**Report Date:** 5/8/2020  
**Project:** CBOB  
**EMSL Order:** 342006580

AIHA-LAP, LLC--EMLAP Accredited  
#163563



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EMSL Order: 342006580  
Customer ID: SEVC42  
Collected: 4/25/2020  
Received: 5/04/2020  
Analyzed: 5/08/2020

**Proj:** CBOB

### 1. Description of Analysis

#### Analytical Laboratory

EMSL Analytical, Inc. (EMSL) is a nationwide, full service, analytical testing laboratory network providing Asbestos, Mold, Indoor Air Quality, Microbiological, Environmental, Chemical, Forensic, Materials, Industrial Hygiene and Mechanical Testing services since 1981. Ranked as the premier independently owned environmental testing laboratory in the nation, EMSL puts analytical quality as its top priority. This quality is recognized by many well-respected federal, state and private accrediting agencies, and assured by our high quality personnel, including many Ph.D. microbiologists and mycologists.

EMSL is an independent laboratory that performed the analysis of these samples. EMSL did not conduct the sampling or site investigation for this report. The samples referenced herein were analyzed under strict quality control procedures using state-of-the-art microbiological methods. The analytical methods used and the data presented are scientifically and legally defensible.

The laboratory data is provided in compliance with ISO-IEC 17025 guidelines for the particular test(s) requested, including any associated limitations for the methods employed. These data are intended for use by professionals having knowledge of the testing methods necessary to interpret them accurately.

### 2. Analytical Results

See attached data reports and charts.



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**Proj:** CBOB

## Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number: Client Sample ID: Sample Location:	342006580-0001 PBM1 PO Building	342006580-0002 P1M1 PO Building	342006580-0003 P1M2 PO Building	342006580-0004 P2M1 PO Building	342006580-0005 P2M2 PO Building
<b>Spore Types</b>	Category	Category	Category	Category	Category
Alternaria (Ulocladium)	-	-	-	-	-
Ascospores	-	-	-	Rare	Rare
Aspergillus/Penicillium	-	*High*	-	Low	High
Basidiospores	Rare	-	-	-	-
Bipolaris++	-	-	-	-	-
Chaetomium	Rare	Low	-	-	-
Cladosporium	-	-	-	Low	-
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Fusarium	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes++	-	-	-	Rare	-
Pithomyces++	-	-	-	-	-
Rust	-	-	-	Rare	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	*High*	Low	Rare
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Cercospora++	-	-	-	Rare	-
Nigrospora	-	-	-	Rare	-
Trichoderma	-	-	-	-	-
Hyphal Fragment	Rare	-	-	-	-
Insect Fragment	Rare	-	-	-	-
Pollen	-	-	-	-	-

Category: Count/per area analyzed

Rare: 1 to 10 Low: 11 to 100 Medium: 101 to 1000 High: >1000

++ = Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

\* = Sample contains fruiting structures and/or hyphae associated with the spores.

- = Not detected.

Yessica Martinez Seeman, Microbiology  
Technical Manager, Central Florida

No discernable field blank was submitted with this group of samples.

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. When the information supplied by the customer can affect the validity of the result, it will be noted on the report.

Samples analyzed by EMSL Analytical, Inc. Orlando, FL AIHA-LAP, LLC--EMLAP Accredited #163563

Initial report from: 05/08/2020 16:32:13

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**EMSL Order:** 342006580  
**Customer ID:** SEVC42  
**Collected:** 4/25/2020  
**Received:** 5/04/2020  
**Analyzed:** 5/08/2020

**Proj:** CBOB

## Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number: Client Sample ID: Sample Location:	342006580-0006 P4M1 PO Building	342006580-0007 P5M1 PO Building	342006580-0008 P6M1 PO Building	342006580-0009 P7M1 PO Building	342006580-0010 C1M1 COI Building
<b>Spore Types</b>	Category	Category	Category	Category	Category
Alternaria (Ulocladium)	-	-	-	-	-
Ascospores	-	Low	-	-	-
Aspergillus/Penicillium	Low	*High*	*High*	*High*	*High*
Basidiospores	-	-	-	-	-
Bipolaris++	-	-	-	-	-
Chaetomium	-	Medium	-	-	-
Cladosporium	-	-	-	*Medium*	-
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Fusarium	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes++	-	-	-	-	-
Pithomyces++	-	-	-	-	-
Rust	-	-	Rare	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	*High*	-	-	-	*High*
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Cercospora++	-	-	-	-	-
Nigrospora	-	-	-	-	-
Trichoderma	-	*High*	-	-	-
Hyphal Fragment	-	-	-	-	-
Insect Fragment	-	-	-	-	-
Pollen	-	-	-	-	-

Category: Count/per area analyzed

Rare: 1 to 10 Low: 11 to 100 Medium: 101 to 1000 High: >1000

++ = Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

\* = Sample contains fruiting structures and/or hyphae associated with the spores.

- = Not detected.

Yessica Martinez Seeman, Microbiology  
Technical Manager, Central Florida

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Nassau,

**EMSL Order:** 342006580  
**Customer ID:** SEVC42  
**Collected:** 4/25/2020  
**Received:** 5/04/2020  
**Analyzed:** 5/08/2020

**Proj:** CBOB

## Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number: Client Sample ID: Sample Location:	342006580-0011 C2M1 COI Building	342006580-0012 C3M1 COI Building	342006580-0013 H1M1 MOH Centre	342006580-0014 H1M2 MOH Centre	342006580-0015 H2M1 MOH Centre
Spore Types	Category	Category	Category	Category	Category
Alternaria (Ulocladium)	-	-	-	-	-
Ascospores	-	-	-	Rare	-
Aspergillus/Penicillium	-	High	-	Rare	-
Basidiospores	-	-	-	-	-
Bipolaris++	-	-	-	-	-
Chaetomium	-	-	-	-	-
Cladosporium	-	-	-	-	Low
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Fusarium	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes++	-	-	-	-	-
Pithomyces++	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	*High*	*High*	Rare	-	-
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Cercospora++	-	-	-	-	-
Nigrospora	-	-	-	-	-
Trichoderma	-	-	-	-	-
Hyphal Fragment	-	-	-	-	Rare
Insect Fragment	-	-	-	-	-
Pollen	-	-	-	-	-

Category: Count/per area analyzed

Rare: 1 to 10 Low: 11 to 100 Medium: 101 to 1000 High: >1000

++ = Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

\* = Sample contains fruiting structures and/or hyphae associated with the spores.

- = Not detected.

Yessica Martinez Seeman, Microbiology  
Technical Manager, Central Florida

No discernable field blank was submitted with this group of samples.

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. When the information supplied by the customer can affect the validity of the result, it will be noted on the report.

Samples analyzed by EMSL Analytical, Inc. Orlando, FL AIHA-LAP, LLC--EMLAP Accredited #163563

Initial report from: 05/08/2020 16:32:13

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**Analyzed:** 5/08/2020

**Proj:** CBOB

## Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number: Client Sample ID: Sample Location:	342006580-0016 H2M2 MOH Centre	342006580-0017 H2M3 MOH Centre	342006580-0018 H2M4 MOH Centre		
<b>Spore Types</b>	Category	Category	Category		
Alternaria (Ulocladium)	-	-	-		
Ascospores	-	-	-		
Aspergillus/Penicillium	-	Rare	Low		
Basidiospores	-	-	-		
Bipolaris++	-	-	-		
Chaetomium	-	-	-		
Cladosporium	Rare	Low	Medium		
Curvularia	-	-	-		
Epicoccum	-	-	-		
Fusarium	-	-	-		
Ganoderma	-	-	-		
Myxomycetes++	-	-	-		
Pithomyces++	-	-	-		
Rust	-	-	-		
Scopulariopsis/Microascus	-	-	-		
Stachybotrys/Memnoniella	-	-	-		
Unidentifiable Spores	-	-	-		
Zygomycetes	-	-	-		
Cercospora++	-	-	-		
Nigrospora	-	-	-		
Trichoderma	-	-	-		
Hyphal Fragment	Rare	Medium	High		
Insect Fragment	-	-	Rare		
Pollen	-	-	-		

Category: Count/per area analyzed

Rare: 1 to 10 Low: 11 to 100 Medium: 101 to 1000 High: >1000

++ = Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

\* = Sample contains fruiting structures and/or hyphae associated with the spores.

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Yessica Martinez Seeman, Microbiology  
Technical Manager, Central Florida

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**Proj:** CBOB

### 3. Understanding the Results

EMSL Analytical, Inc. is an independent laboratory, providing unbiased and scientifically valid results. These data represent only a portion of an overall IAQ investigation. Visual information and environmental conditions measured during the site assessment (humidity, moisture readings, etc.) are crucial to any final interpretation of the results. Many factors impact the final results; therefore, result interpretation should only be conducted by qualified individuals. The American Conference of Governmental Industrial Hygienists (ACGIH) has published a good reference book covering sampling and data interpretation. It is entitled, Bioaerosols: Assessment and Control, 1999.

Fungal spores are found everywhere. Whether or not symptoms develop in people exposed to fungi depends on the nature of the fungal material (e.g., allergenic, toxic, or infectious), the exposure level, and the susceptibility of exposed persons. Susceptibility varies with the genetic predisposition (e.g., allergic reactions do not always occur in all individuals), age, pre-existing medical conditions (e.g., diabetes, cancer, or chronic lung conditions), use of immunosuppressive drugs, and concurrent exposures. These reasons make it difficult to identify dose/response relationships that are required to establish "safe" or "unsafe" levels (i.e., permissible exposure limits).

It is generally accepted in the industry that indoor fungal growth is undesirable and inappropriate, necessitating removal or other appropriate remedial actions. The New York City guidelines and EPA guidelines for mold remediation in schools and commercial buildings define the conditions warranting mold remediation. Always remember that water is the key. Preventing water damage or water condensation will prevent mold growth.

This report is not intended to provide medical advice or advice concerning the relative safety of an occupied space. Always consult an occupational or environmental health physician who has experience addressing indoor air contaminants if you have any questions.



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## 4. Glossary of Fungi

<b>ASCOSPORES</b>	
<b>Natural Habitat</b>	Everywhere in nature.
<b>Suitable Substrates in the Indoor Environment</b>	Depends on genus and species.
<b>Water Activity</b>	Depends on genus and species.
<b>Mode of Dissemination</b>	Forcible ejection or passive release and dissemination by wind or insects.
<b>Allergic Potential</b>	Depends on genus and species.
<b>Potential or Opportunistic Pathogens</b>	Depends on genus and species.
<b>Industrial Uses</b>	Depends on genus and species.
<b>Potential Toxins Produced</b>	Depends on genus and species.
<b>Other Comments</b>	Ascospores are the result of sexual reproduction and produced in a saclike structure called an ascus. All ascospores belong to members of the Phylum Ascomycota, which encompasses a plethora of genera worldwide.

<b>ASPERGILLUS/PENICILLIUM</b>	
<b>Natural Habitat</b>	Plant debris ·Seed ·Cereal crops
<b>Suitable Substrates in the Indoor Environment</b>	Grows on a wide range of substrates indoors ·Prevalent in water damaged buildings ·Foods (blue mold on cereals, fruits, vegetables, dried foods) ·House dust ·Fabrics ·Leather ·Wallpaper ·Wallpaper glue
<b>Water Activity</b>	Aw=0.75-0.94
<b>Mode of Dissemination</b>	Wind ·Insects
<b>Allergic Potential</b>	Type I (hay fever, asthma) ·Type III (hypersensitivity)
<b>Potential or Opportunistic Pathogens</b>	Possible depending on the species.
<b>Industrial Uses</b>	Many depending on the species
<b>Potential Toxins Produced</b>	Possible depending on the species.
<b>Other Comments</b>	Spores of Aspergillus and Penicillium (including others such as Acremonium, Talaromyces, and Paecilomyces) are small and spherical with few distinguishing characteristics. They cannot be differentiated or speciated by non-viable impaction sampling methods. Some species with very small spores may be undercounted in samples with high background debris.

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## BASIDIOSPORES

<b>Natural Habitat</b>	Forest floors. Lawns .Plants (saprobes or pathogens depending on genus)
<b>Suitable Substrates in the Indoor Environment</b>	Depends on genus. Wood products
<b>Water Activity</b>	Unknown.
<b>Mode of Dissemination</b>	Forcible ejection. Wind currents.
<b>Allergic Potential</b>	Type I allergies (hay fever, asthma) . Type III (hypersensitivity pneumonitis)
<b>Potential or Opportunistic Pathogens</b>	Depends on genus.
<b>Industrial Uses</b>	Edible mushrooms are used in the food industry.
<b>Potential Toxins Produced</b>	Amanitins. monomethyl-hydrazine. muscarine. ibotenic acid. psilocybin.
<b>Other Comments</b>	Basidiospores are the result of sexual reproduction and formed on a structure called the basidium. Basidiospores belong to the members of the Phylum Basidiomycota, which includes mushrooms, shelf fungi, rusts, and smuts.

## CERCOSPORA

<b>Natural Habitat</b>	Parasite on higher plants, commonly causes leaf spot diseases.
<b>Suitable Substrates in the Indoor Environment</b>	Unknown
<b>Water Activity</b>	Moderate –High humidity
<b>Mode of Dissemination</b>	Irrigation water, Insects, Rain Wind
<b>Allergic Potential</b>	Unknown
<b>Potential or Opportunistic Pathogens</b>	Unknown
<b>Other Comments</b>	Includes morphologically similar spores of Cercospora, Pseudocercospora, and Septoria.

## CHAETOMIUM

<b>Natural Habitat</b>	Dung. Seeds. Soil. Straw.
<b>Suitable Substrates in the Indoor Environment</b>	Paper. Sheetrock. Wallpaper.
<b>Water Activity</b>	Aw=0.84-0.89.
<b>Mode of Dissemination</b>	Wind. Insects. Water splash.
<b>Allergic Potential</b>	Type I (asthma and hay fever).
<b>Potential or Opportunistic Pathogens</b>	Onychomycosis. C. perlucidum recognized as a new agent of cerebral phaeohyphomycosis.
<b>Industrial Uses</b>	Cellulase production, Textile testing.
<b>Potential Toxins Produced</b>	Chaetomin. Chaetoglobosins A,B,D and F are produced by Chaetomium globosum. Sterigmatocystin is produced by rare species

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## CLADOSPORIUM

Natural Habitat	Dead plant matter. Straw. Soil. Woody plants
Suitable Substrates in the Indoor Environment	Fiberglass duct liner. Paint. Textiles. Found in high concentration in water-damaged building materials.
Water Activity	Aw 0.84-0.88
Mode of Dissemination	Air
Allergic Potential	Type I (asthma and hay fever).
Potential or Opportunistic Pathogens	Edema. keratitis. onychomycosis. pulmonary infections. Sinusitis.
Industrial Uses	Produces 10 antigens.
Potential Toxins Produced	Cladosporin and Emodin.

## MYXOMYCETES++

Natural Habitat	Decaying logs, Dead leaves , Dung , Lawns , Mulched flower beds, Lawns
Suitable Substrates in the Indoor Environment	Rotting lumber
Free moisture required for mold growth	Unknown
Mode of Dissemination	Insects, Water, Wind
Allergic Potential	Type I
Potential or Opportunistic Pathogens	Unknown
Industrial Uses	
Other Comments	Includes Myxomycetes, Smut, and Periconia.

## NIGROSPORA

Natural Habitat	Common on live or dead grass, seeds & soil.
Suitable Substrates in the Indoor Environment	Unknown
Water Activity	Unknown
Mode of Dissemination	Forcibly projected.
Allergic Potential	Type 1 allergies (hey fever, asthma)
Potential or Opportunistic Pathogens	Keratitis & skin lesions

## RUSTS

Natural Habitat	Parasitic on cultivated and many types of plants
Suitable Substrates in the Indoor Environment	Unknown- rust fungi require a living plant host for growth
Free moisture required for mold growth	Unknown
Mode of Dissemination	Wind, Forcible Ejection
Allergic Potential	Type I. (hay fever, asthma)
Potential or Opportunistic Pathogens	Unknown

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## STACHYBOTRYS/MEMNONIELLA

<b>Natural Habitat</b>	Decaying plant materials and Soil.
<b>Suitable Substrates in the Indoor Environment</b>	Water damaged building materials such as: ceiling tiles, gypsum board, insulation backing, sheet rock, and wall paper. Paper. Textiles.
<b>Water Activity</b>	Aw=0.94
<b>Mode of Dissemination</b>	Insects, Water, and Wind
<b>Allergic Potential</b>	Type I (hay fever, asthma)
<b>Potential or Opportunistic Pathogens</b>	Unknown.
<b>Industrial Uses</b>	Unknown.
<b>Potential Toxins Produced</b>	Mycotoxins produced by Stachybotrys include Roridin A, Roridin E, Roridin H, Roridin L-2, Satratoxin G, Satratoxin H, Isosatratoxin F, Verucaridin A, Verucaridin J, and Verrucaridin.
<b>Other Comments</b>	Stachybotrys and Memnoniella are closely related and many Memnoniella species have been renamed under Stachybotrys. Mycologists are continuing to debate whether Stachybotrys and Memnoniella should be grouped or split apart (see references below). Stachybotrys may play a role in the development of sick building syndrome. The presence of this fungus can be significant due to its ability to produce mycotoxins. Exposure to the toxins can occur through inhalation, ingestion, or skin exposure.
<b>References</b>	Generic hyper-diversity in Stachybotriaceae. L. Lombard et al., <i>Persoonia</i> 36, 2016: 156–246. Overview of Stachybotrys (Memnoniella) and current species status. Y. Wang et al., <i>Fungal Diversity</i> , 2015: DOI: 10.1007/s13225-014-0319-0.

## TRICHODERMA

<b>Natural Habitat</b>	A worldwide saprophytic fungi, being isolated from dead plant material and soil.
<b>Suitable Substrates in the Indoor Environment</b>	Paper, textiles, wet wood
<b>Water Activity</b>	Unknown
<b>Mode of Dissemination</b>	Insects, water splash, wind
<b>Allergic Potential</b>	Hay fever, asthma, hypersensitivities
<b>Potential or Opportunistic Pathogens</b>	Occasionally associated with disease in immunocompromised people.

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### 5. References and Informational Links

#### Books

- Bioaerosols: Assessment and Control. Janet Macher, Ed., American Conference of Governmental Industrial Hygienists, Cincinnati, OH 1999.
- Exposure Guidelines for Residential Indoor Air Quality. Environmental Health Directorate, Health Protection Branch, Health Canada, Ottawa, Ontario, 1989.
- Fungal Contamination in Public Buildings: Health Effects and Investigation Methods. Health Canada, Ottawa, Ontario, 2004.
- IICRC: S500 Standard and Reference Guide for Professional Water Damage Restoration. 3rd Edition, Institute of Inspection, Cleaning, and Restoration Certification, Vancouver, WA, 2006
- IICRC: S520 Standard and Reference Guide for Professional Mold Remediation. 1st Edition, Institute of Inspection, Cleaning, and Restoration Certification, Vancouver, WA, 2004
- Field Guide for the Determination of Biological Contaminants in Environmental Samples. 2nd Edition, American Industrial Hygiene Association, 2005.

#### Consumer Links

Read the full text of AIHA's "The Facts About Mold" consumer brochure.

<http://www.aiha.org/get-involved/VolunteerGroups/Documents/Biosafety/VG-FactsAbout%20MoldDecember2011.pdf>

The Occupational Safety and Health Administration (OSHA)

<http://www.osha.gov/SLTC/molds/index.html>

CDC Mold Facts

<http://www.cdc.gov/mold/faqs.htm>

CDC Stachybotrys - Questions and answers on Stachybotrys chartarum and other molds

<http://www.cdc.gov/mold/stachy.htm>

IOM, NAS: Clearing the Air: Asthma and Indoor Air Exposures

<https://www.epa.gov/indoor-air-quality-iaq/should-you-have-air-ducts-your-home-cleaned>



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National Library of Medicine-Mold website

<http://www.nlm.nih.gov/medlineplus/molds.html>

California Department of Health Services (CADOHS)

<https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/Mold.aspx>

Minnesota Department of Health

<http://www.health.state.mn.us/divs/eh/indoorair/mold/index.html>

New York City Department of Health and Mental Hygiene

<https://www1.nyc.gov/site/doh/health/health-topics/mold.page>

H.R.: The United States Toxic Mold Safety and Protection Act

### EPA

"Should You Have the Air Ducts in Your Home Cleaned?"

<http://www.epa.gov/iaq/pubs/airduct.html>

General information about molds and actions that can be taken to clean up or prevent a mold problem.

<http://www.epa.gov/asthma/molds.html>

"A Brief Guide to Mold, Moisture, and Your Home" - Includes basic information on mold, cleanup guidelines, and moisture and mold prevention

<http://www.epa.gov/mold/moldguide.html>

"Mold Remediation in Schools and Commercial Buildings" - Information on remediation in schools and commercial property, references for potential mold and moisture remediators.

<https://www.epa.gov/mold/mold-remediation-schools-and-commercial-buildings-guide>

### FEMA

"Homes That Were Flooded May Harbor Mold Problems" - Information and tips for cleaning mold.

<http://www.fema.gov/news-release/homes-were-flooded-may-harbor-mold-problems>

"Dealing With Mold & Mildew in Your Flood Damaged Home.

[http://www.fema.gov/pdf/rebuild/recover/fema\\_mold\\_brochure\\_english.pdf](http://www.fema.gov/pdf/rebuild/recover/fema_mold_brochure_english.pdf)



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### 6. Important Terms, Conditions, and Limitations

#### A. Sample Retention

Samples analyzed by EMSL will be retained for 60 days after analysis date. Storage beyond this period is available for a fee with written request prior to the initial 30 day period. Samples containing hazardous/toxic substances which require special handling will be returned to the client immediately. EMSL reserves the right to charge a sample disposal fee or return samples to the client.

#### B. Change Orders and Cancellation

All changes in the scope of work or turnaround time requested by the client after sample acceptance must be made in writing and confirmed in writing by EMSL. If requested changes result in a change in cost the client must accept payment responsibility. In the event work is cancelled by a client, EMSL will complete work in progress and invoice for work completed to the point of cancellation notice. EMSL is not responsible for holding times that are exceeded due to such changes.

#### C. Warranty

EMSL warrants to its clients that all services provided hereunder shall be performed in accordance with established and recognized analytical testing procedures and with reasonable care in accordance with applicable federal, state and local laws. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied. EMSL disclaims any other warranties, express or implied, including a warranty of fitness for particular purpose and warranty of merchantability.

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## EMSL Analytical, Inc.

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**Attn:** S. Helena Moultrie  
SEV Consulting Group  
Chesapeake Road  
PO Box N1416  
Nassau,

EMSL Order: 342006580  
Customer ID: SEVC42  
Collected: 4/25/2020  
Received: 5/04/2020  
Analyzed: 5/08/2020

**Proj:** CBOB

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of tort, contract or any other legal or equitable theory, in excess of the amount paid to EMSL by client thereunder.

### E. Indemnification

Client shall indemnify EMSL and its officers, directors and employees and hold each of them harmless for any liability, expense or cost, including reasonable attorney's fees, incurred by reason of any third party claim in connection with EMSL services, the test result data or its use by client



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EMSL Order: 342006560

Customer ID: +22SEVC02

Customer PO:

Project ID:

**Attention:** S. Helena Moultrie  
SEV Consulting Group  
Chesapeake Road  
P.O. Box N1416  
Nassau,

**Phone:** (242) 557-9416

**Fax:**

**Received Date:** 05/04/2020 10:25 AM

**Analysis Date:** 05/08/2020

**Collected Date:** 04/28/2020

**Project:**

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
C1A1 342006560-0001	Ceiling Tile-COI Building	Tan/White Fibrous Heterogeneous	40% Cellulose 35% Min. Wool	10% Perlite 15% Non-fibrous (Other)	None Detected
C1A2 342006560-0002	Ceiling Tile-COI Building	Tan/White Fibrous Heterogeneous	40% Cellulose 35% Min. Wool	10% Perlite 15% Non-fibrous (Other)	None Detected
C2A1 342006560-0003	Ceiling Tile-COI Building	Tan/White Fibrous Heterogeneous	10% Cellulose 65% Min. Wool	<1% Perlite 25% Non-fibrous (Other)	None Detected
C2A2 342006560-0004	Ceiling Tile-COI Building	Tan/White Fibrous Heterogeneous	40% Cellulose 35% Min. Wool	10% Perlite 15% Non-fibrous (Other)	None Detected
C3A1 342006560-0005	Ceiling Tile-COI Building	Tan/White Fibrous Heterogeneous	40% Cellulose 35% Min. Wool	10% Perlite 15% Non-fibrous (Other)	None Detected
C3A2 342006560-0006	Ceiling Tile-COI Building	Tan/White Fibrous Heterogeneous	40% Cellulose 35% Min. Wool	10% Perlite 15% Non-fibrous (Other)	None Detected
P1A1 342006560-0007	Ceiling Tile-PO Building	Tan/White Fibrous Heterogeneous	40% Cellulose 35% Min. Wool	10% Perlite 15% Non-fibrous (Other)	None Detected
P1A2 342006560-0008	Ceiling Tile-PO Building	Tan/White Fibrous Heterogeneous	40% Cellulose 35% Min. Wool	10% Perlite 15% Non-fibrous (Other)	None Detected
P2A1 342006560-0009	Ceiling Tile-PO Building	Tan/White Fibrous Heterogeneous	40% Cellulose 30% Min. Wool	10% Perlite 20% Non-fibrous (Other)	None Detected
P4A1 342006560-0010	Ceiling Tile-PO Building	Tan/White Fibrous Heterogeneous	40% Cellulose 30% Min. Wool	10% Perlite 20% Non-fibrous (Other)	None Detected
P4A2 342006560-0011	Ceiling Tile-PO Building	Tan/White Fibrous Heterogeneous	40% Cellulose 30% Min. Wool	10% Perlite 20% Non-fibrous (Other)	None Detected
P5A1 342006560-0012	Ceiling Tile-PO Building	Tan/White Fibrous Heterogeneous	40% Cellulose 30% Min. Wool	10% Perlite 20% Non-fibrous (Other)	None Detected
P5A2 342006560-0013	Ceiling Tile-PO Building	Tan/White Fibrous Heterogeneous	40% Cellulose 30% Min. Wool	10% Perlite 20% Non-fibrous (Other)	None Detected
P6A1 342006560-0014	Ceiling Tile-PO Building	Tan/White Fibrous Heterogeneous	40% Cellulose 30% Min. Wool	10% Perlite 20% Non-fibrous (Other)	None Detected
P6A2 342006560-0015	Ceiling Tile-PO Building	Tan/White Fibrous Heterogeneous	40% Cellulose 35% Min. Wool	10% Perlite 15% Non-fibrous (Other)	None Detected
P7A1 342006560-0016	Ceiling Tile-PO Building	Tan/White Fibrous Heterogeneous	40% Cellulose 30% Min. Wool	10% Perlite 20% Non-fibrous (Other)	None Detected

Initial report from: 05/08/2020 10:54:56



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<b>EMSL Order:</b> 342006560 <b>Customer ID:</b> +22SEVC02 <b>Customer PO:</b> <b>Project ID:</b>
--

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
P7A2	Ceiling Tile-PO Building	Tan/White Fibrous	40% Cellulose 20% Min. Wool	10% Perlite 30% Non-fibrous (Other)	None Detected
342006560-0017		Heterogeneous			

Analyst(s) \_\_\_\_\_  
 Jessicka Lopez (17)

  
 Carlos Rivadeneyra, Laboratory Director  
 or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition unless otherwise noted. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Orlando, FL NVLAP Lab Code 101151-0

Initial report from: 05/08/2020 10:54:56

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EMSL Order:	342006517
CustomerID:	+22SEVC02
CustomerPO:	
ProjectID:	

Attn: **S. Helena Moultrie**  
**SEV Consulting Group**  
**Chesapeake Road**  
**P.O. Box N1416**  
**Nassau,**

Phone: (242) 557-9416  
 Fax:  
 Received: 05/04/20 10:25 AM  
 Collected: 4/28/2020

**Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)\***

Lab ID:	Analyzed	Weight	Collected	Reporting Detection Limit	Lead Concentration	
342006517-0001	5/6/2020	0.2583 g	4/28/2020	0.0080 % wt	<0.0080 % wt	<input checked="" type="checkbox"/>
<i>Client Sample</i> H1L1		Site: MOH Centre				
342006517-0002	5/6/2020	0.2701 g	4/28/2020	0.0080 % wt	<0.0080 % wt	<input checked="" type="checkbox"/>
<i>Client Sample</i> C1L1		Site: COI Building				
342006517-0003	5/6/2020	0.2624 g	4/28/2020	0.0080 % wt	<0.0080 % wt	<input checked="" type="checkbox"/>
<i>Client Sample</i> C2L1		Site: COI Building				
342006517-0004	5/6/2020	0.2640 g	4/28/2020	0.0080 % wt	0.0098 % wt	<input type="checkbox"/>
<i>Client Sample</i> C3L1		Site: COI Building				
342006517-0005	5/6/2020	0.2559 g	4/28/2020	0.0080 % wt	<0.0080 % wt	<input checked="" type="checkbox"/>
<i>Client Sample</i> PBL1		Site: PO Building				
342006517-0006	5/6/2020	0.2947 g	4/28/2020	0.0080 % wt	<0.0080 % wt	<input checked="" type="checkbox"/>
<i>Client Sample</i> P1L1		Site: PO Building				
342006517-0007	5/6/2020	0.2546 g	4/28/2020	0.0080 % wt	<0.0080 % wt	<input checked="" type="checkbox"/>
<i>Client Sample</i> P2L1		Site: PO Building				
342006517-0008	5/6/2020	0.2742 g	4/28/2020	0.0080 % wt	<0.0080 % wt	<input checked="" type="checkbox"/>
<i>Client Sample</i> P4L1		Site: PO Building				
342006517-0009	5/6/2020	0.2675 g	4/28/2020	0.0080 % wt	<0.0080 % wt	<input checked="" type="checkbox"/>
<i>Client Sample</i> P5L1		Site: PO Building				
342006517-0010	5/6/2020	0.2949 g	4/28/2020	0.0080 % wt	<0.0080 % wt	<input checked="" type="checkbox"/>
<i>Client Sample</i> P6L1		Site: PO Building				
342006517-0011	5/6/2020	0.2601 g	4/28/2020	0.0080 % wt	<0.0080 % wt	<input checked="" type="checkbox"/>
<i>Client Sample</i> P7L1		Site: PO Building				

  
 Carlos Rivadeneyra, Laboratory Director  
 or other approved signatory

\*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. When the information supplied by the customer can affect the validity of the results, it will be noted on the report. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.

Samples analyzed by EMSL Analytical, Inc. Orlando, FL AIHA-LAP, LLC-ELLAP Accredited #163563

Initial report from 05/08/2020 12:09:34

**EMSL Analytical, Inc.**

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EMSL Order:	342006517
CustomerID:	+22SEVC02
CustomerPO:	
ProjectID:	

Attn: **S. Helena Moultrie**  
**SEV Consulting Group**  
**Chesapeake Road**  
**P.O. Box N1416**  
**Nassau,**

Phone: (242) 557-9416  
 Fax:  
 Received: 05/04/20 10:25 AM  
 Collected: 4/28/2020

**Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)\***

<i>Lab ID:</i>	<i>Analyzed</i>	<i>Weight</i>	<i>Collected</i>	<i>Reporting Detection Limit</i>	<i>Lead Concentration</i>
----------------	-----------------	---------------	------------------	--------------------------------------	---------------------------

**Guidelines for Federal USEPA/HUD Lead in Paint Chips**=0.5 % Wt or =1.0 mg/cm<sup>2</sup> is the EPA definition of a lead-based paint.

Below Method Reporting Limit (RL)



Above RL but below EPA definition of a lead-based paint



Above EPA definition of a lead-based paint

These guidance limits are typically used in most scenarios. More stringent local or project specific guidelines may apply.

Please contact the laboratory for statement of uncertainty data for the utility of properly evaluating these results against any regulatory standards or guidelines.

No responsibility or liability is assumed for the manner in which the results are used or interpreted.

Carlos Rivadeneyra, Laboratory Director  
 or other approved signatory

\*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. When the information supplied by the customer can affect the validity of the results, it will be noted on the report. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.

Samples analyzed by EMSL Analytical, Inc. Orlando, FL AIHA-LAP, LLC--ELLAP Accredited #163563

Initial report from 05/08/2020 12:09:34

## Appendix IV: Emergency Response Plan

### 1.0 Purpose and Applicability

1.1 The purpose of this Plan is to coordinate the response of the workers to a situation that may jeopardize the safety or wellbeing of the workers, the general public, the community and the environment. Types of disasters include: fires, explosions, bomb threats, chemical releases, loss of utilities, and natural disasters (floods, wind, etc.). It should be noted that where applicable any national Emergency Response Plan will supersede this plan.

### 2.0 Roles and Responsibilities

2.1 **Command Center** will be the general office location of the Contractor or the area identified by the Designated Manager if this is not acceptable.

2.2 **Disaster Team** will respond to all emergency, contingency and disaster situations. This will comprise the Project Manager, Designated Manager, and, where applicable due to the extent of the emergency, relevant Government agencies' representatives.

2.3 **Incident Commander** or highest-level administrator who is present at an incident will report to the Command Center as soon as possible. The Incident Commander is authorized to declare an evacuated area safe for re-occupancy. In the event of an emergency requiring the assistance of Government agencies, the Government representatives will assume the responsibility of the Incident Commander. For localized situations which do not require Government agency involvement, the Incident Commander will be the Contactor's representative for the project. The Incident Commander is also responsible for ensuring that an incident reporting form is completed for every incident on site as described by the Emergency Response Plan. Copies of completed incident reporting forms should be kept on site and made available to Government officers if requested during an inspection. Any incident reporting forms should be submitted along with weekly environmental monitoring reports submitted to the DEPP.

2.4 **Managers/ Supervisors** shall maintain a current list of workers including their home phone numbers and mobile phone numbers, if applicable. Managers are also responsible for evacuating staff of affected areas as necessary and as instructed, and to account for all staff.

2.5 **Security** will respond under the direction of the Security Supervisor. Security personnel will take immediate steps to prevent the entrance of all non-essential traffic at the incident. The Highest Ranking Officer on duty will be responsible for traffic control. Security personnel will ask employees not authorized to be at the incident scene to leave the area.

### 3.0 Disaster Declaration Procedures

3.1 A **Phase A (Alert) Disaster** is the initial response to the report of a potential disaster or an actual disaster when the impact on the construction site is uncertain. For example, a Phase A disaster might involve an equipment system failure that may extend for a few hours. Limited on-site personnel can handle a Phase A disaster. Advancement to a Phase B is unnecessary unless the incident cannot be handled by those already involved or the nearby residents must be notified.

3.2 A **Phase B Disaster** will be declared in response to an actual event that stresses onsite operations, but can be managed by on-duty personnel or requires outside assistance. The purpose of Phase B is to quickly mobilize on-duty personnel and resources in support of event management. For example, a Phase B disaster might involve extended or widespread power failures due to downed lines, a significant fire, or a significant hazardous material release on site. Notification for a Phase B disaster will be accomplished by mega-phone and other available PA systems. Each supervisor with specific roles in a disaster is responsible for notifying their own staff. Upon notification of a Phase B disaster, personnel will remain on duty, report immediately to their assigned areas, and proceed as directed. In the event of upgrade or termination of Phase B, all personnel who have been contacted will be informed by supervisors.

3.3 A **Phase C Disaster** is the site response to a major disaster in which on-site personnel cannot effectively manage the event. The purpose of a Phase C is to quickly mobilize necessary Public Emergency Responders. A Phase C disaster involves the evacuation of staff from the site. Notification for a Phase C disaster will be accomplished via mega-phone and other available PA systems, and each supervisor with specific roles in a disaster is responsible for notifying their own staff. A Phase C may be terminated at the discretion of the Incident Commander. Upon notification of a Phase C disaster, personnel will remain on duty and report immediately to supervisor for direction.

#### **4.0 Disaster Procedures**

4.1 Each department shall maintain a current list of personnel including their home phone numbers and mobile phone numbers. This list will be made available to the Incident Commander upon request.

4.2 The following terms and corresponding emergency contact numbers must be used to report or declare an internal disaster.

#### **Emergency Agencies**

Fire Department **911**

Ambulance Department **919**

Police Department **911**

#### **Administrative Agencies**

Bahamas Power and Light **302-1000 or 323-5561 thru 4**

Department of Environmental Planning & Protection **322-4546**

Department of Environmental Health Services **322-8037 or 322-2295**

Department of Meteorology **356-3734 or 356-3736**

Hurricane Forecast Section **377-7178 or 377-7040**

Royal Bahamas Police Force **919 or 911**

Water and Sewerage Corporation **302-5599**

Ministry of Works, Director **322-4830/1**

Ministry of Health (COVID-19 Surveillance Unit) **502-7382**

4.3 The **Disaster Team** will be comprised of the following staff

- Incident Commander (IC): Project Manager – Don Wilmott **424-8723**
- Alternate IC: Asst. Project Manager – O’Neil Moss **357-7488**
- Alternate IC: Construction Manager/Site Superintendent – Ashley Ginton **325-3226**

4.4 Contractor’s Project Manager will perform the initial investigation of a potential disaster. As the investigation progresses, the Command Center will be updated. If a significant threat exists, the Command Center will notify the Incident Commander. It is the responsibility of the Incident Commander to assess the situation and issue the announcement specifying the level of the disaster and the location of the Command Center.

### **Hurricanes**

Please follow the Hurricane Preparedness and Response Plan in section 3.9.

### **Fuel Spills**

Please follow the Petroleum Spill Response Plan in Appendix II.

### **FIRE AND EXPLOSION CONTROL MEASURES**

There will be no burning on the construction site and a fire extinguisher will be kept on site at the fueling area. There will be no smoking on the construction site, particularly in or near the designated fueling area.

All employees will immediately report any fires occurring in or near the site. A phone will be available to all employees for emergencies which might occur on site. All emergency numbers will be posted on site.

If there is a fire or explosion, call the **Fire Department at 911**.

### **MUNICIPAL ELECTRICAL POWER LOSS OR DAMAGE**

All issues relating to loss or damage to power lines, poles or junction boxes whether in the ground or overhead must be deferred to BPL. The Project Manager will ensure that all staff is removed from the area and that the area is secured. BPL will be notified and the site will await the arrival of the BPL technicians (Telephone **302-1000 or 323-5561 thru 4**).

### **MUNICIPAL WATER LINES DAMAGE**

All issues relating to loss or damage to water lines or junction boxes will be the responsibility of the Contractor. The Project Manager will ensure that all staff is removed from the area, that the area is secured and that the Water and Sewerage Corporation is notified (Telephone **302-5599**).

### **ACCIDENTS INVOLVING THE PUBLIC**

In the event of an accident involving members of the public, whether by vehicle or pedestrian, the Police, Fire Department and/or Ambulance will be notified as required. The Project Manager will ensure, as much as is possible, that the area is secured and that the accident site poses no additional safety risk to the public or staff. Once the Government agents have arrived on the scene, these agents will assume responsibility of the site of the accident.

## Incident Reporting Form

<b>Incident</b>	
Reported by:	
Contact details: Company: Email: Phone:	
Date of occurrence:	
Time of occurrence:	
Type of incident:	<input type="checkbox"/> Accident <input type="checkbox"/> Incident <input type="checkbox"/> Near miss <input type="checkbox"/> Violence <input type="checkbox"/> Ill health <input type="checkbox"/> Safety <input type="checkbox"/> Other
Description of incident:	<i>(Include details that may have contributed to the incident (e.g. poor lighting, absence of signage))</i>
Description of the outcome:	<i>(Harm/health effects/damage)</i>
Description of the corrective measures taken to address immediate hazards related to the incident:	
<b>The affected person:</b>	
Description:	<input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Worker <input type="checkbox"/> Visitor <input type="checkbox"/> Contractor <input type="checkbox"/> Other
Name:	
Address:	
Date of birth:	
Telephone:	
Email:	

<b>Witness details</b>	
Name	
Address:	
Telephone:	
Email:	
<b>First aid</b>	
First aid provided:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable
Time of attendance:	
By whom:	Name: Address: Telephone: Email:
Details of provision:	
<b>Post incident:</b>	
Where did the person involved in the incident go next?	<input type="checkbox"/> Hospital <input type="checkbox"/> Clinic <input type="checkbox"/> Private doctor <input type="checkbox"/> Home <input type="checkbox"/> Returned to work <input type="checkbox"/> Other
Was the health and safety officer notified of the incident?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Additional information:	

## Appendix V: Training Forms

Site induction form			
Employee name:		Position/job title:	
Employment start date:		Supervisor/manager:	

### ***Health and safety***

I have been shown:

- How to do my job safely, including the use of guards and other safety equipment
- The safety signs and what they mean
- How to safely use, store and maintain safety equipment
- How to safely use, store and maintain equipment, machinery, tools and hazardous substances

I know:

- My responsibilities as an employee
- Where EMP and HSE information is kept

### ***Hazards***

I know:

- The hazards in my workplace
- The controls for these hazards
- How to report hazards
- Where records of hazards are kept
- The procedures for working safely

### ***Emergencies***

I am familiar with:

- The location to assemble at in the event of an emergency
- The location of the fire extinguishers
- The evacuation procedure
- The first-aid kit and its location
- Who can provide first-aid (if applicable)

### ***Incidents and injuries***

I know:

- To report injuries, near hits and misses and early signs of discomfort and how to report them
- Where incident/injury forms are kept
- Who I report to
- Reports will be investigated and I will be informed of the results

***Accidents and Spills***

I know:

- To report accidents and spills and how to report them
- The petroleum spill kit and its location
- Where accident/spill forms are kept
- Who I report to
- Reports will be investigated and I will be informed of the results

Signed by employee:		Date:	
Signed by trainer:		Date:	

**Weekly staff meeting:**

<b>Training record</b>			
Employee:			
Occupation:			
Training subject (and key points covered)	Date trained	Date retrained	Signature to confirm training delivered and understood
			Employee:  Supervisor:
			Employee:  Supervisor:

**Appendix VI: Emergency Powers (COVID-19 Pandemic) (Lockdown) Order, 2020**

# EMERGENCY POWERS (COVID 19 PANDEMIC) (LOCKDOWN) ORDER, 2020

## Arrangement of Order

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**EMERGENCY POWERS (COVID 19 PANDEMIC)  
REGULATIONS, 2020  
(CHAPTER 34)**

**EMERGENCY POWERS (COVID 19 PANDEMIC)  
(LOCKDOWN) ORDER, 2020**

In exercise of the powers conferred on me by the Emergency Powers (Covid 19 Pandemic) Regulations, 2020, I HEREBY make the following Order —

**1. Citation and duration.**

- (1) This Order may be cited as the Emergency Powers (Covid 19 Pandemic) (Lockdown) Order, 2020.
- (2) This Order shall expire at 5:00 am on Wednesday the 19<sup>th</sup> day of August, 2020.

**2. Application.**

- (1) Subject to paragraph (2), this Order shall apply to all Islands of The Bahamas.
- (2) This Order shall cease to apply to Grand Bahama at 5:00 am on Friday the 7<sup>th</sup> day of August, 2020.

**3. Curfew.**

- (1) There is hereby imposed a twenty-four curfew effective 10:00 pm Tuesday, the 4<sup>th</sup> day of August, 2020 until 5:00 am Wednesday the 19<sup>th</sup> day of August, 2020.
- (2) Notwithstanding paragraph (1), every agency, business, establishment or undertaking shall remain closed except —
  - (a) The Princess Margaret Hospital and other public health medical facilities;
  - (b) Doctors Hospital (Shirley Street and Blake Road);
  - (c) the Rand Memorial Hospital;
  - (d) a quarantine centre or facility;
  - (e) the National Food Distribution Task Force;
  - (f) Grand Bahama food distribution centres;
  - (g) Sandilands Rehabilitation Centre;
  - (h) the National Emergency Management Agency;

- (i) the Disaster Reconstruction Authority;
- (j) a hotel with guests subject to paragraph (3);
- (k) The Royal Bahamas Police Force;
- (l) The Royal Bahamas Defence Force;
- (m) Fire Services;
- (n) Operation Bahamas Turks and Caicos (OPBAT);
- (o) the Department of Correctional Services;
- (p) the Department of Immigration;
- (q) the Customs Department;
- (r) the Judiciary (essential workers only);
- (s) the Bahamas Civil Aviation Authority (air traffic controllers);
- (t) the Ministry of the Environment and Housing;
- (u) the Ministry of Social Services;
- (v) the National Insurance Board, generally, for non-client facing services only;
- (w) the Bahamas Humane Society and the Grand Bahama Humane Society;
- (x) the Bahamas National Trust;
- (y) waste disposal and sanitation services;
- (z) governmental, non-governmental and religious organisations operating for the distribution of food supplies;
- (aa) a business licensed to provide security guard services;
- (ab) a business that provides veterinarian emergency services;
- (ac) essential workers, including contractors or subcontractors, in any public or privately owned utility provider of water, electricity or electronic communications, including the print and electronic news media;
- (ad) subject to paragraph (4), ports of entry, container ports, freight forwarders and private terminals for the conduct, where applicable, of basic port maintenance services (inclusive of garbage removal), domestic trade, imports and exports of containerised freight, and the import, treatment, bunkering and export of oil products;
- (ae) any public or privately owned terminal and ancillary or support services for the receipt of imported wholesale petroleum products for domestic consumption, for the purpose of the storage and onward delivery of the same to any public or private entity for utility or retail distribution throughout The Bahamas over land or by barges;

- (af) a business engaged in inter-island transportation of freight; and
- (ag) the following businesses and its essential employees —
  - (i) Polymers International Ltd;
  - (ii) Grand Bahama Power Company;
  - (iii) Grand Bahama Utility Company;
  - (iv) Bradford Grand Bahama Limited;
  - (v) PharmaChem Technologies G.B. Ltd. and subcontractors;
  - (vi) Freeport Container Port Ltd;
  - (vii) Bahama Rock - Martin Marietta;
  - (viii) Buckeye Bahamas Hub Ltd and subcontractors;
  - (ix) Grand Bahama Shipyard Ltd.;
  - (x) Bahamas Industrial Technologies Ltd.;
  - (xi) Bahamian Brewery;
  - (xii) Tropical Shipping;
  - (xiii) MSC Bahamas;
  - (xiv) Freeport Aggregates Limited;
  - (xv) Quality Services Limited;
  - (xvi) Grand Bahama Airport Company; and
  - (xvii) Equinor South Riding Point LLC.
- (3) Notwithstanding paragraph (1) —
  - (a) a healthcare worker may conduct home visits to members of the general public for the purpose of providing medical or therapeutic care;
  - (b) a farmer or caretaker shall be permitted to maintain crops and animals;
  - (c) an Administrator, for the purposes of distributing food and water on behalf of the Government and the National Food Distribution Task Force;
  - (d) fishing for crawfish, lobster season preparation, and harvesting of crabs shall be permitted;
  - (e) the servicing and replenishing of automatic banking machines shall be permitted; and
  - (f) night deposits shall be permitted.
- (3) A hotel permitted to open under paragraph (1), subject to the following conditions —
  - (a) guests shall not be permitted to leave the premises except as permitted by this Order;

- (b) indoor dining, casinos, discos, gyms, spas, salon services are prohibited.
- (4) A freight forwarder permitted to operate under paragraph (1) shall only provide services to the general public utilizing curbside pickup or delivery.
- (5) No person, except an essential worker for a business or establishment specified in paragraph (2), shall leave his place of residence for any purpose whatsoever, other than for —
  - (a) the purpose of seeking urgent medical care at a hospital specified in paragraph (2); or
  - (b) travel to secure groceries, gas, pharmaceuticals, water or to any business or undertakings permitted to open in order 5; or
  - (c) any activity permitted by this Order.
- (6) Any person who contravenes this Order commits an offence and is liable on summary conviction to a fine not exceeding ten thousand dollars or to a term of imprisonment for a term not exceeding eighteen months or to both in accordance with regulation 30 of the Emergency Powers (Covid 19 Pandemic) Regulations, 2020<sup>1</sup>.

#### **4. Work remotely from home.**

- (1) All businesses and offices may continue their business operations by allowing their employees to work remotely from home utilizing virtual means, unless those employees are permitted to work under orders 3 or 6 or are designated as being essential workers under order 5.
- (2) Where a business is unable to have employees work remotely from home, that business shall cease its operations.

#### **5. Public Service.**

- (1) All persons employed within the public service, unless specifically designated as essential workers in order 3 or designated by the permanent secretary of any Ministry as essential workers, shall work remotely from home.
- (2) All persons employed within the public service who are so designated as essential workers by the permanent secretary of the respective Ministry shall report to their place of work.

#### **6. Opening of grocery stores, pharmacies, etc.**

- (1) Notwithstanding order 3 —

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<sup>1</sup>S.I. No. 101 of 2020.

- (a) the following businesses may operate and open to the general public on Mondays, Wednesdays and Fridays between the hours of 7:00 am and 5:00 pm —
  - (i) a grocery store, whether wholesale or retail;
  - (ii) a water depot;
  - (iii) a pharmacy offering curbside service only;
  - (iv) a gas station offering external service only;
  - (v) a hardware store offering curbside and delivery service only;
  - (vi) a private medical facility, for the purpose of providing the following types of care —
    - (aa) emergency medical care;
    - (bb) immunisation;
    - (cc) neonatal and prenatal care;
    - (dd) dialysis;
    - (ee) chemotherapy and other cancer treatments;
    - (ff) tele-medicine; and
  - (vii) a dental practice for the purpose of providing emergency care;
- (b) the National Insurance Board shall be permitted to open to the general public on Mondays, Wednesdays and Fridays between the hours of 9:00 am and 5:00 pm from the National Stadium for the distribution of cheques;
- (c) a utility service provider shall be permitted to open to the general public on Mondays, Wednesdays and Fridays;
- (d) a commercial bank may open —
  - (i) on Mondays, Wednesdays and Fridays between the hours of 9:00 am and 1:00 pm to the general public; and
  - (ii) Mondays to Fridays, between the hours of 8:00 am to 3:00 pm for operation services, excluding any client facing services;
- (e) an international bank, trust company or financial institutions may operate Mondays to Fridays for operation services, excluding any client-facing services, between the hours of 9:00 am and 5:00 pm with ten essential staff members or more as may be approved in writing by the Competent Authority;
- (f) the following businesses may open only to essential workers on Saturdays between the hours of 7:00 am and 1:00 pm —
  - (i) a grocery store;

- (ii) a water depot;
  - (iii) a pharmacy offering curbside service only;
  - (iv) a gas station offering external service only;
  - (g) the essential workers of a pool maintenance or landscape service provider may operate on Tuesdays and Thursdays between the hours of 7:00 am and 5:00 pm;
  - (h) a bakery, water and ice production company shall be permitted to operate utilizing curbside pickup and delivery on Mondays, Wednesday and Fridays between the hours of 7:00 am and 5:00 pm; and
  - (i) a news vendor shall be permitted to operate on Mondays to Fridays between the hours of 7:00 am and 1:00 pm provided that the vendor remains stationary.
- (2) For the purposes of this order, “essential worker” includes employees of an agency, business or establishment specified in order 3.

#### **7. Legal services.**

- (1) Notwithstanding order 3, a counsel and attorney shall be permitted to operate when —
- (a) discharging instructions in existing criminal or urgent civil matters or taking instructions in new criminal or urgent civil matters where this cannot be done by audio-visual means;
  - (b) acting in connection with the execution of wills subject in all cases to producing identification if requested to do so.
- (2) For the avoidance of doubt, no counsel and attorney shall be permitted to attend his offices and shall work remotely from home in accordance with order 5.

#### **8. Restocking of goods.**

- (1) A—
- (a) grocery store, whether wholesale or retail;
  - (b) wholesale bakery;
  - (c) water depot;
  - (d) hardware store,
- shall be permitted to open for the restocking of goods only on Tuesdays and Thursdays between the hours of 7:00 am and 5:00 pm.
- (2) For the avoidance of doubt, the businesses specified in paragraph (1) shall not be permitted to serve the general public on the days specified in paragraph (1).

**9. Designation of shopper.**

Each household shall designate one person to carry out shopping for essential item or seeking essential services as specified in order 6.

**10. Subsistence fishing.**

Subsistence fishing shall be permitted on Mondays, Wednesdays and Fridays during the daytime.

**11. Undertakings and activities in Abaco and its Cays.**

- (1) Notwithstanding order 3, the following businesses, undertakings and activities in Abaco are permitted to continue in operation —
  - (a) gas stations, between the hours of 6:00 a.m. and 7:00 p.m., for the purpose of refuelling generators;
  - (b) non-governmental organisations for the production and provision of water and food distribution; and
  - (c) for reconstruction generally.
- (2) Notwithstanding order 5, a hardware store or pharmacy currently operating from the premises of a grocery store may continue to operate from within the grocery store and is not restricted to operating utilizing curbside pickup and delivery.

**12. Religious administration and services.**

Notwithstanding order 3 —

- (a) a place of religious instruction that conducts services on —
  - (i) Saturdays, shall be permitted to operate on Saturday the 8<sup>th</sup> day of August, 2020 and Saturday the 15<sup>th</sup> day of August, 2020;
  - (ii) Sundays, shall be permitted to operate Sunday the 9<sup>th</sup> day of August, 2020 and Sunday the 16<sup>th</sup> day of August, 2020,  
via live stream between the hours of of 7:00 a.m. and 1:00 pm. from their place of instruction, provided that not more than ten persons shall be permitted to participate in such service;
- (b) a person shall be permitted to attend a place religious instruction individually for private prayer; and
- (c) the administrative offices of a place of religious instruction shall be permitted to operate Monday to Friday between the hours of 9:00 am and 1:00 pm with a maximum of five persons in attendance.

**13. Exercise.**

Notwithstanding order 3, a person is permitted to exercise —

- (a) in his immediate neighbourhood between the hours of 6:00 am and 9:00 am; and
- (b) in his yard.

**14. Construction.**

Notwithstanding order 3, construction shall be permitted on —

- (a) Monday to Friday between the hours of 7:00 am and 5:00 pm; and
- (b) Saturdays between the hours of 7:00 am and 1:00 pm.

**15. Funerals.**

Notwithstanding order 3, funerals may be held provided that the funeral service is conducted at the graveside and is limited to five persons exclusive the officiant and mortuary workers.

**16. Weddings.**

Notwithstanding order 3, weddings may be held provided that attendees are limited to five persons exclusive of the officiant.

**17. Restriction on travel.**

Orders 21, 21A, 22, 24, 25, 26, 27 and 28 of the Emergency Powers (Covid 19 Pandemic) (No. 3) Order, 2020 shall continue apply provided that diplomatic personnel shall not be required to submit to mandatory monitoring.

**18. Exemptions.**

The Competent Authority, may by letter, in exceptional circumstances and in consultation with public health professionals, exempt a business or class of business from any restriction imposed by this Order.

**19. Event of necessity or emergency.**

In the event of a necessity or emergency, a person shall seek the permission of the Commissioner of Police to leave his place of residence by calling 311 or the nearest police station.

**20. Emergency Powers (Covid 19 Pandemic)(No. 3) Order, 2020.**

For the avoidance of doubt —

- (a) this Order shall apply to every establishment or business permitted to operate pursuant to order 5 of the Emergency Powers (Covid 19 Pandemic)(No. 3) Order, 2020;
- (b) the Emergency Powers (Covid 19 Pandemic)(No. 3) Order, 2020 as amended from time to time, shall continue to have effect subject to this Order and shall continue in force at the expiration of this Order; and
- (c) orders 3, 4, 5, and 6 of the Emergency Powers (Covid 19 Pandemic) (No. 3) Order, 2020, shall apply for the duration of this Order.

**21. Revocation of S.I. No. 113 of 2020.**

The Emergency Powers (Covid 19 Pandemic) (Grand Bahama) (Lockdown) Order, 2020 is hereby revoked.

Made this *4<sup>th</sup>* day of *August*, 2020



**PRIME MINISTER**

### Appendix VII: Contractor's Report of Complaints Received

Date of complaint:	
Time of complaint:	
Name of person recording complaint:	
Name of person making complaint:	
Telephone number:	
Address:	
Nature of complaint:	
Results of investigation:	
Action taken:	
Date complainant contacted with results of the investigation and action taken:	
Name and signature of person investigating the complaint:	

## Appendix VIII: Template for Inspection Form

**Contractor:** \_\_\_\_\_

**Observers:** \_\_\_\_\_

**Tide:** high/low

**Weather:** sunny/partly cloudy/mostly cloudy/rain

**Date/Time:** \_\_\_\_\_

**Air Temp (°F)** \_\_\_\_\_

**Rain in last 24 hrs:** Yes/No

### Types of Construction Activities

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Excavation            | <input type="checkbox"/> Erosion and Sediment Control | <input type="checkbox"/> Air Pollution/Dust control |
| <input type="checkbox"/> Fill Import           | <input type="checkbox"/> Waste /Hazardous Material    | <input type="checkbox"/> Water/Drains issues        |
| <input type="checkbox"/> Land clearing/Grading | <input type="checkbox"/> Noise Pollution              | <input type="checkbox"/> Other                      |
| <input type="checkbox"/> Fueling               |   |   |

### Excavation Operations

<i>Components</i>	<i>Compliance w/ EMP</i>	<i>Maintenance required</i>	<i>Comments/Recommendations</i>
Control of dewatering discharge and runoff.	<input type="checkbox"/>	<input type="checkbox"/>	
Contamination/oil spills identified	<input type="checkbox"/>	<input type="checkbox"/>	
Hazardous/contaminated material disposal and containment.	<input type="checkbox"/>	<input type="checkbox"/>	
Proper disposal of spoils	<input type="checkbox"/>	<input type="checkbox"/>	

### Erosion and Sedimentation Control

<i>Components</i>	<i>Compliance w/ EMP</i>	<i>Maintenance required</i>	<i>Comments/Recommendations</i>
Proper stabilization of slopes and exposed areas on construction site and at stockpile site	<input type="checkbox"/>	<input type="checkbox"/>	
Adequate installation and maintenance of perimeter controls.	<input type="checkbox"/>	<input type="checkbox"/>	
Use of diversion swales and basins.	<input type="checkbox"/>	<input type="checkbox"/>	
Proper sorting of spoils at stockpile management site	<input type="checkbox"/>	<input type="checkbox"/>	

### Groundwater Management

<i>Components</i>	<i>Compliance w/ EMP</i>	<i>Maintenance required</i>	<i>Comments/Recommendations</i>
Measures to control oil or chemical spillage (e.g. fuel containment sump, drip trays)	<input type="checkbox"/>	<input type="checkbox"/>	
Accessibility of spill kits/absorbents and spill response equipment	<input type="checkbox"/>	<input type="checkbox"/>	
Adequate secondary containment for fuel and oil tanks.	<input type="checkbox"/>	<input type="checkbox"/>	

### Air Quality Management

<i>Components</i>	<i>Compliance w/ EMP</i>	<i>Maintenance required</i>	<i>Comments/Recommendations</i>
Watering of construction sites to minimize dust generated.	<input type="checkbox"/>	<input type="checkbox"/>	
Equipment properly maintained to reduce emissions.	<input type="checkbox"/>	<input type="checkbox"/>	

### Waste Management

<i>Components</i>	<i>Compliance w/ EMP</i>	<i>Maintenance required</i>	<i>Comments/Recommendations</i>
Good housekeeping practices on site.	<input type="checkbox"/>	<input type="checkbox"/>	
Adequate on-site sanitary facilities.	<input type="checkbox"/>	<input type="checkbox"/>	
Sewage being properly disposed of.	<input type="checkbox"/>	<input type="checkbox"/>	
Proper collection and disposal of construction and hazardous wastes (licensed collectors, manifests)	<input type="checkbox"/>	<input type="checkbox"/>	
Vehicle wash down / Contractors Yard	<input type="checkbox"/>	<input type="checkbox"/>	

**Landscape Management**

<i>Components</i>	<i>Compliance w/ EMP</i>	<i>Maintenance required</i>	<i>Comments/Recommendations</i>
Minimization of disturbance to terrestrial vegetation (e.g. plants to be preserved).	<input type="checkbox"/>	<input type="checkbox"/>	

**Other**

<i>Components</i>	<i>Compliance w/ EMP</i>	<i>Maintenance/Action required</i>	<i>Comments/Recommendations</i>
Proper maintenance and availability of fire extinguishers	<input type="checkbox"/>	<input type="checkbox"/>	
Workers wearing proper PPE	<input type="checkbox"/>	<input type="checkbox"/>	
Workers observing COVID-19 guidance including wearing masks and social distancing	<input type="checkbox"/>	<input type="checkbox"/>	

**Other Corrective Actions Needed:**

**Inspector(s):** \_\_\_\_\_