

EMC'S JOURNEY TO DEVELOP AND IMPLEMENT AN HSSE SYSTEM

AMCHAM, GUYANA, HSSE CONFERENCE
JANUARY 19 – 21, 2020



PRESENTATION OUTLINE

- About EMC Inc.
 - Who We Are
 - Our Services
- Development of Our HSSE System
- Key Components of EMC's HSSE System
- Examples of HSSE Measures
- Key Lessons and Experiences





ENVIRONMENTAL MANAGEMENT CONSULTANTS

Providing Environmental Services and Promoting Green Growth

EMC is an independent professional consulting company providing environmental and associated services.

EMC, with its core team and affiliated associates, has accumulated significant experience in working in Guyana for more than 10 years.



Prepares **Environmental and Social Impact Assessments** across a range of sectors



Prepares **Environmental and Social Management Plans** across a range of sectors



Supports regulatory **Compliance Monitoring, Auditing and Training**



Conducts **Biodiversity Assessment and Monitoring** and Prepares **Biodiversity Management Plans**

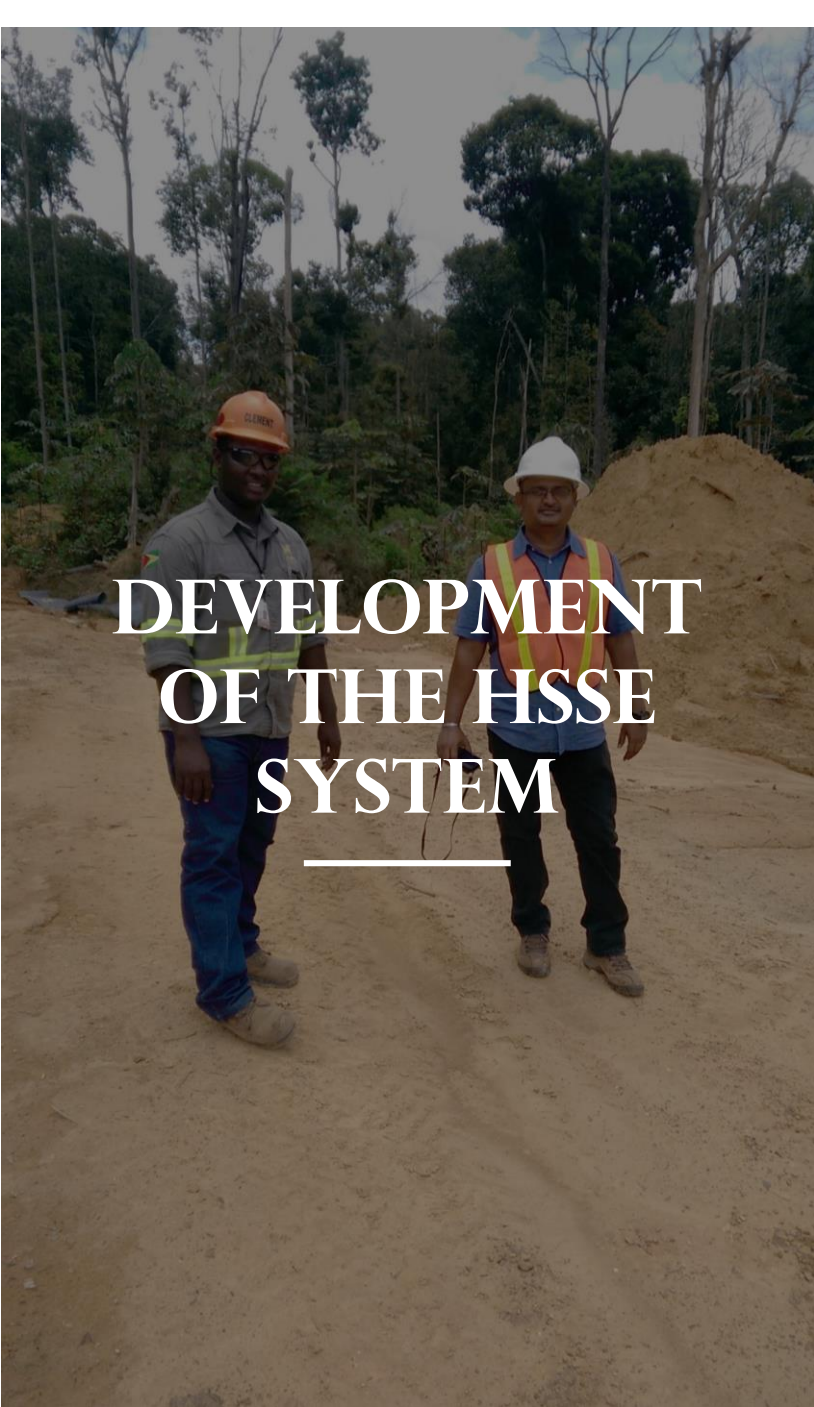


Support to Government Agencies to meet obligations to **Multilateral Environmental Agreements**

OUR SERVICES

“*Offering Sustainable Solutions to the Environmental Challenges of Development*”





DEVELOPMENT OF THE HSSE SYSTEM

ORIGIN OF THE HSSE SYSTEM

EMC embraced a culture of HSSE since its inception. Given the nature of our work, the use of personal protective equipment was required for all field trips. We also worked with IFIs such as the World Bank and IDB as well as international companies. Through this, we were exposed to and develop our HSSE systems. However, the HSSE System was not formally documented.

The oil and gas sector was a catalyst for the development of EMC's HSSE System. Our HSSE system was advanced to enable us to work with Tier 1 and Tier 2 suppliers. EMC also provided services directly to oil and gas companies.

We also worked with the Centre for Local Business Development (CLDB) on documenting the HSSE system. EMC was the first company to complete the CLDB's programme.

CATALYST FOR GROWTH

HSSE Policy

**HSSE
Manual**

**Operation Manuals for
Boats and Vehicles**

**COMPONENTS
OF EMC'S HSSE
SYSTEM**



HSSE POLICY



Environmental Management Consultants
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Health, Safety, Security and Environment Policy

Obligations

Environmental Management Consultants (EMC) is committed to a policy where all possible measures are taken to remove or reduce risks to the health, safety and security of our personnel and to ensure that there is no harm to the environment from work activities.

We are committed to ensuring compliance with the Occupational Safety and Healthy Act No. 32 of 1997, the Occupational Health and Safety (Amendment) Act No. 22 of 2009 and the Environmental Protection Act of 1996 and Regulations thereunder.

Responsibilities

EMC will provide and maintain:

- a safe working environment;
- information and training that is necessary to ensure safety from injury and risks to health, systems for the security of personnel, and protection of the environment in which we work;
- a commitment to consult and co-operate in all matters relating to health, safety, security and the environment; and
- a commitment to continually improve HSSE performance.

EMC Personnel and Associate Consultants have an obligation to:

- comply with HSSE guidance and work practices and any direction in this regard given by management;
- take reasonable care of the health, safety and security of themselves and others;
- wear personal protective equipment and clothing during field work; and
- report all known or observed hazards and incidents while on project assignments.

A handwritten signature in black ink, appearing to read 'Sya Nita', is written over a light-colored background.

Managing Director

Date: September 11, 2019



MANUAL

HEALTH, SAFETY, SECURITY & ENVIRONMENT



January 2021





*Nah one time a fire mek
peas boil.*

Guyanese Proverb

COVID-19 PREVENTION MEASURES

- Memo to EMC staff outlining COVID-19 response measures. This memo is currently posted on all notice boards.
- Revising the HSSE Manual to include safety measures to prevent COVID-19 transmission
- Masks are to be worn at all times when in the office or conducting field work.
- Physical distancing of staff at office or in during field visits.
- Temperature testing and hand sanitization upon entry to the premises.
- Thermometer and alcohol based hand sanitizers provided to field teams.



STAFF TRAINING AND AWARENESS

- Induction for all new staff on HSSE System
- All documentation is readily available in hardcopy and softcopy for review
- Induction on use of first aid supplies for all staff
- Weekly meetings of the HSSE Committee with Activity List
- Weekly briefing with logistics personnel

EMC HSSE ACTIVITY LIST – January 04, 2021

Activity	Person Responsible	Timeline
HEALTH		
First Aid Inventory – SRC first aid kit check	Safraz	To be determined
First Aid Inventory – procure first aid supplies	Safraz	To be determined
First Aid Training – in house training (medical kits and refresher from initial first aid session)	Michael	To be determined
First Aid Training – follow up with Red Cross	Sharmattie	January 08, 2021
EMC Safety Measures against COVID 19 – conduct an assessment	Sharmattie	January 08, 2021
SAFETY		
Office - walkaround to identify areas for improvement	Safraz	January 08, 2021
PPE usage – reminders to support staff and Contractors for use	Safraz	January 08, 2021
Vehicle - weekly briefing with Drivers on safety issues	Safraz	January 08, 2021
Vehicle - report on weekly briefing with Drivers	Safraz	January 08, 2021
Fire Extinguisher- arrange to uplift	Safraz	January 08, 2021
SECURITY		
Office – weekly briefing with Guards	Safraz	January 08, 2021
Office – report on weekly briefing with Guards	Safraz	January 08, 2021
MMC Security – follow up with MMC for testing of alarms	Sharmattie	To be determined
Vehicle – weekly briefing with Drivers on security issues	Safraz	January 08, 2021
Vehicle – report on weekly briefing with Drivers	Safraz	January 08, 2021
ENVIRONMENT		
Office Surroundings - walkaround to identify areas for improvement	Safraz	January 08, 2021
Waste Disposal – reminder to cleaning staff on proper waste disposal	Safraz	January 08, 2021



EXAMPLES: STAFF TRAINING AND AWARENESS



External training for staff also provided (fire extinguisher training, first aid training)



Refresher on HSSE Manual is conducted periodically for all staff

HSSE MEASURES FOR FIELD WORK



- Designated Health and Safety Officer on each trip.
- Job Hazard Assessments (JHAs) are prepared for all field trips.
- Field teams are briefed on the steps to prevent hazards provided in the JHA prior to the commencement of work. Soft copies are also shared in advance of the trip.
- Field teams are required to use relevant PPEs at all times.
- Necessary equipment is always provided to field teams who are trained in their use (satellite phones and GPS units).

EXAMPLE OF A JOB HAZARD ASSESSMENT



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Job Hazard Analysis

Project/Client Name: [REDACTED]
Location: [REDACTED]
Specific Task: Air, Water and Noise Data Collection Exercise
Date: September 03, 2020

Minimum Required PPE for Entire Task:

Item	Required	Description	Other	Notes
Hard Hat		Hearing Protection	Sanitary Gloves	X
Safety/Long Boots	X	Safety Goggles	Work Gloves	
Reflective Vest	X	Respirator/Face mask/Dust mask	PPE Clothing	Long Pants, Caps/Hats
Life Jackets/Life Rings		Face Shield	Other	Weather protection gear (umbrellas, raincoats) Hand sanitizers, Lysol wipes/ Rubbing alcohol and alcohol wipe (70%)

Equipment/Tools Required:

GPS	X	pH Meter	Surface Water Test Kit	X	Noise Meter	X
Camera	X	TSS Meter & Probe	Flow Test Meter & Probe		Other	
Satellite Phone		Multi-Meter & Probe	PM Meter	X		
Walkie Talkies		Turbidity Meter	Gases Meter	X		

Training Required for Task: Review of Job Hazard Assessment.
Our clients will be informed of our strict no hand shaking policy before and after each meeting or debriefing session.

First Aid Kit Required for Task: Yes

Project/Task Activities	Hazard Source and Type	Steps to Prevent Hazards or Injuries
Preventing the Spread of the Novel Corona Virus	Description/Type: Biological Novel Corona Virus (COVID 19) Source: Virus from suspended droplets in the air, virus on hands and surfaces.	These steps must be done regardless of specific exposure risks and at each step of the project from packing to site monitoring: <ul style="list-style-type: none"> Masks should be worn at all times during the visit. If a mask must be temporarily removed (for example to drink water), ensure that the unmasked person stands at least 6 feet away from other persons. Engage with the company prior to the visit to encourage representatives who will be accompanying the EMC team on the inspection to wear masks during the visit. Comply with any COVID-19 precautions of the site being visited. Sick team members should not be allowed to participate in the visit. If any company personnel accompanying the EMC team are showing visible signs of illness (coughing, sneezing, etc),

Project/Task Activities	Hazard Source and Type	Steps to Prevent Hazards or Injuries
Data Collection (Air Measurement and Water Quality and Noise Levels)	Type: Noise (one-off), Source: Equipment (including generators); Machinery, Dust Compressor.	The safety briefing must be conducted before the visit commences. Personnel should use sunscreen to protect themselves from harmful UV rays and sunburns, particularly on hot days. PPE must be worn throughout visit: <ul style="list-style-type: none"> Safety Vest. Safety Boots. Weather protection devices (e.g. hats, umbrellas, raincoats as necessary). No noise protection PPEs are required as noise levels are within safe decibel levels and exposure occurs once during the visit.
	Type: Dust particles/ Volatile Organic Compounds (VOCs) Source: Paint fumes, Raisin, pigments	Safety Measures <ul style="list-style-type: none"> Face Masks (cloth and or dust) should be worn throughout the visit and must follow the COVID -19 measure specified above.
	Type: Slip, Trips and Falls/ Injuries Source: Uneven Terrain/ Protruding Rocks, slippery/wet surfaces.	Safety Measures <ul style="list-style-type: none"> Identify and use only safe pathways when traversing site. Keep eyes on path and nearby surroundings when walking. Take small steps and shuffle feet in potentially slippery areas.
	Type: Toxicological (chemical contaminants); Biological (infectious pathogens) Source: Surface and effluent discharge during water sampling and quality testing. Type: Strain in lower back and/or legs. Source: Lifting and carrying samples out of boat.	PPE must be worn: <ul style="list-style-type: none"> Gloves In addition: <ul style="list-style-type: none"> Practice proper techniques for bending and lifting.
Unpacking of Equipment	Description/Type: Damage to Equipment Source: Dropping equipment/breakage	<ul style="list-style-type: none"> Ensure all Equipment are functional. Hold equipment firmly in both hands Place equipment on even surface when conducting checks. Place equipment in the designated storage area.

Notes:

- Any team member who feels unwell during the course of the visit should alert the Officer with responsibility for HSSE.
- Any team member is authorized to stop work immediately should there be any unsafe working conditions or work practices.

	Name	Job Title
JHA Developed by:	Tishawanna Harry	Environmental Officer
JHA Reviewed by:	Kandila Ramotar	Senior Environmental Officer
JHA Approved by:	Khalid Alladin	Projects Manager

JHA Field Briefing by:

Name: Tishawanna Harry
Signature: [Signature]
Date: 03/09/2020

[Signature]
Khalid Alladin

Observations:

HSSE MEASURES FOR THE OFFICE

- Entrance remains locked and is only open when staff or visitors buzz at the gate
- Caution tape placed on uneven surfaces
- Designated waste disposal point at the rear of the premises. Waste is removed from the premises by a third party contractor
- No hazardous materials or wastes are stored on-site
- All electrical equipment and appliances are turned off when not in use



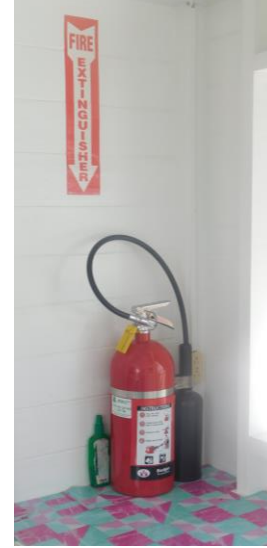
EMERGENCY PREPAREDNESS AND RESPONSE



Drains connected to a sump with a submersible pump leading to external drains to manage flood risk



EMC's facility was also raised to reduce flood risk.



Fire extinguishers are several locations in office. Sand buckets are also provided on the premises.

Small portable fire extinguishers are placed in all EMC vehicles.



EMERGENCY PREPAREDNESS AND RESPONSE



All vehicles are required to reverse park to facilitate easy and quick departure.



Muster point for staff in emergencies

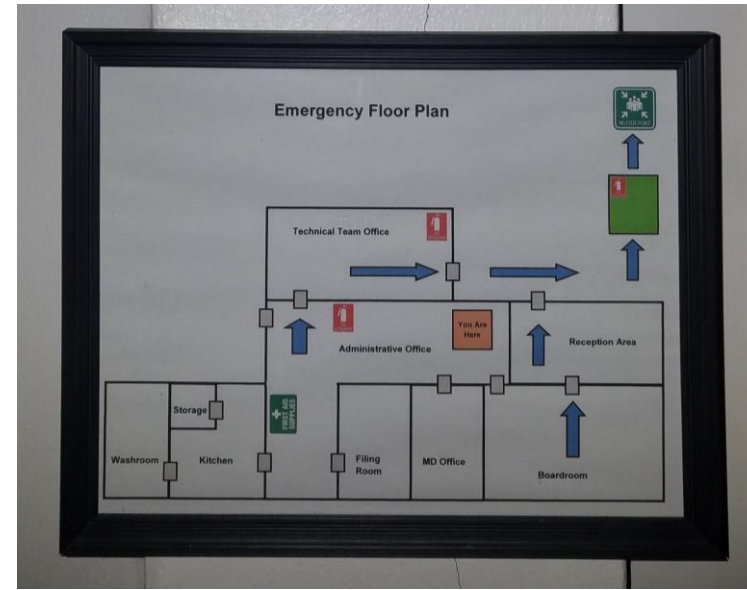
EMERGENCY PREPAREDNESS AND RESPONSE



First aid supplies available in office.

First aid kits are provided in all EMC vehicles.

All field teams are equipped with first aid kits.



Emergency evacuation plans are available throughout the premises.

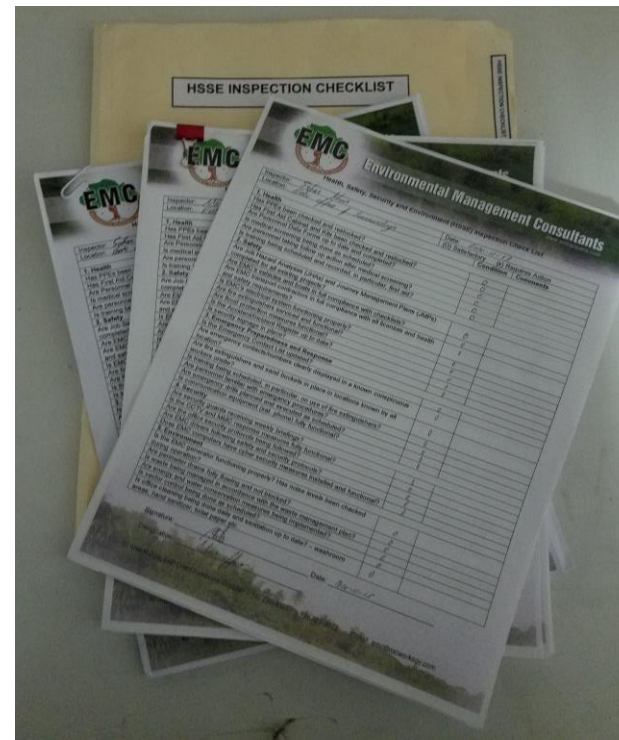
A copy of the Emergency Response Plan is also placed on all notice boards.

Emergency contact lists are also provided throughout the premises.



CHECK, CHECK AND CHECK AGAIN!

- Weekly walkarounds of EMC premises guided by checklist.
- Fortnightly inventory of first aid supplies.
- Daily checks of vehicles by drivers guided by a checklist.
- All third party transportation contractors must comply with EMC's HSSE requirements.



KEY LESSONS AND EXPERIENCE

- The development, implementation and sustaining of HSSE System required the direct involvement of leadership and senior management.
- Team work to develop the HSSE System ensured buy in and ownership and that the HSSE System is fit for purpose.
- Clearly defined roles and responsibilities to ensure everyone understands how they fit into the HSSE System implementation.



KEY LESSONS AND EXPERIENCE

- Documentation is critical – Manuals and Checklists.
- Regular updates on implementation, performance assessments, monitoring, feedback and reporting is key to ensure the HSSE System is maintained and optimized.
- Eventually HSSE measures become part of the organizational culture.
- Success depends on a leader driving the process.

