



**The ARAB CONTRACTORS
OSMAN AHMED OSMAN & CO**

**Environmental performance plan Grain silos expansion project in Arab Al-Awamer with a
capacity of 40 thousand tons in Assiut •**

September 2024



Occupational Health, Safety, Environment And Quality Policy

The Arab Contractors Company's concept of excellence and distinction is based on the principle that the design, development, controlling, administration, service providing and Work execution are according to the quality standards. Addition, The Arab Contractors Company is keen to provide safe workplaces, saving workers' occupational health and safety and to achieve the customers' total satisfaction both nationally and internationally.

Arab Contractors Company is committed to consultation and participation of workers, and, where they exist, workers' representatives to establish effective management systems and provides the training opportunities to raise the workers' efficiency, the required facilities for the sustainable improvement of the quality of executed works and services. In addition to these we are totally committed to all the laws and legislations governing the construction industry, safety, occupational health and environment. Moreover, the Arab Contractors Company has its own internal regulations and systems, with commitment to risk management. This policy is revised periodically to ensure its continuity and fitness Through Understanding the needs and expectations or interested parties.

Objectives :

- Full internal and external customers' satisfaction.
- Raising the efficiency of the workers and train them according to their specialties.
- Prevent accidents and injuries and maintain the safety and health of professional and activity related personnel and reduce risk.
- A commitment to compliance obligations and to maintain the work environment, and the surrounding environment at all stages of the various work and to prevent pollution and work towards achieving sustainable development.
- Constructions projects quality and business performance according to the standards and specifications.
- Maintain competitiveness in the construction industry market while achieving appropriate profitability.

PRESIDENT & CEO

Eng. Ahmed Mostafa ElAssar

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Date: 17/04/2023

First: Main Data

1. General data

Project Name: Expansion of Silos in Arab Al-Awamer with a capacity of 40 thousand tons in Assiut

Contract Type: Tender.

Project sketch

Sketch the general site of the project, indicating:

- North
- Project Entrance
- Contiguous
- Employees' Offices
- Labour Accommodation
- Workers' toilets
- Places of Choen Material
- Places of waste
- Internal roads and corridors
- Winch Location

Second: The work and executive activities of the project

M	Activities	Input	Output	Environmental manifestations	Potential environmental impacts	Environmental Precautions
1	Earthworks	Backhoe - loader - dust trucks - mash cracking trucks - electricity - diesel - water	Dust – exhaust – oils and grease – noise – vibrations – drilling products	Dust – exhaust – oils and grease – noise – thermal stress – vibrations – drilling products – equipment use	<p>Increased dust in the atmosphere (stuck inhaled)</p> <ul style="list-style-type: none"> - Increased exhaust gases - Contamination of soil with oils and grease - Increased noise - (acoustic pollution) - Exposure of workers to thermal stress - Collapse <p>Congestion of the work area with dust and solid waste</p> <ul style="list-style-type: none"> - Damage to the corresponding 	<ul style="list-style-type: none"> • Surveying the facilities in the region • Obtaining maps or plans for all utilities (electricity - water - gas - telephones.....) located in and around the work area before drilling in order to take them into account during work and not to destroy them. • Making the necessary measures to protect establishments in and around work areas • Conducting the necessary studies for the conversion and protection of facilities • Make the necessary plans to regulate traffic in and around work areas • Obtaining all the necessary permits to work before starting the excavation work. • Notify the concerned authorities of the facilities in the area of the date of drilling to send representatives to be present during work to carry out the necessary work towards closing and opening valves and immediate repair of any damages • Coordinate working hours during the day to take into account the following matters: <ul style="list-style-type: none"> - Smooth traffic in the streets, especially at peak times - Comfort of residents of nearby residential areas and government institutions adjacent to the project - High temperature or humidity in the summer, which is due to a danger to project workers • Do not dig in new areas until after the completion of backfilling in the areas that have been dug so as not to leave the drilling open for a long time • Follow the occupational safety and health instructions for the excavation work, supporting the sides and locations of the equipment used • Follow occupational safety and health instructions and special instructions related to traffic safety, such as placing warning signs and concrete barriers painted with reflective colors at work sites and

						<p>placing shock absorbers in places where there is a possibility of collision such as bridge poles and lighting.</p> <ul style="list-style-type: none"> • Commitment to the following with regard to the drilling output: <ul style="list-style-type: none"> - Lifting solid waste from the work site and collecting it in a specific place away from drilling with <ul style="list-style-type: none"> Cover them to prevent the spread of dust - Use the drilling product in the backfill if requested or transfer it to the approved public dumps • Use by workers of personal protective equipment appropriate to the activity • Follow the means of dust control and take into account the following to prevent dust volatilization: <ul style="list-style-type: none"> - Compaction or temporary paving of dirt roads - Spraying the work site and drilling products with water - Limit the speed of cars to not exceed 30 km / h - Cover the output of drilling that is deformed in open sites - Cover dust transport vehicles - Stop work in case of strong winds
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Second: The work and executive activities of the project

M	Activities	Input	Output	Environmental manifestations	Potential environmental impacts	Environmental Precautions
	Follow the excavation work					<ul style="list-style-type: none"> • Periodic maintenance of cars and equipment • Use of noise control methods resulting from the use of equipment (e.g. the use of silencers) • Follow all legal requirements, instructions and bulletins received by identifying and evaluating environmental manifestations, assessing environmental impacts and contracting requirements for the environment.
2	Backfilling and soil leveling	Excavator - Loader - Dust trucks - Mashers - Electricity - Diesel - Water	Dust – exhaust – oils and grease – noise – vibrations – remnants of backfill materials	Dust – Exhaust – Oil and Grease – Noise – Thermal Stress – Vibrations – Use of Equipment – Residues of Backfill Materials	Increased dust in the atmosphere (stuck inhaled) - Increased exhaust gases - Contamination of soil with oils and grease - Increased noise - (acoustic pollution) - Exposure of workers to thermal stress	<ul style="list-style-type: none"> • Use by workers of personal protective equipment appropriate to the activity • Follow the means of dust control and take into account the following to prevent dust volatilization: <ul style="list-style-type: none"> - Damak and spray backfill layers - Limit the speed of cars to not exceed 30 km / h - Cover dust transport vehicles - Stop work in case of strong winds • Do not leave any wood used in the support of the sides of the excavation after backfilling • Speedy completion of road leveling work in the areas that have been completed backfilling • Removing solid waste from the work site, collecting it in a

					<p>Congestion of the work area with dust and solid waste</p>	<p>designated place and covering it until it is transported to approved public dumps</p> <ul style="list-style-type: none"> • Periodic maintenance of cars and equipment • Use of noise control methods resulting from the use of equipment (e.g. the use of a silencer) • Follow occupational safety and health instructions for the use of equipment and traffic safety • Follow all legal requirements, instructions and bulletins received by identifying and evaluating environmental manifestations, assessing environmental impacts and contracting requirements for the environment.
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Second: The work and executive activities of the project

M	Activities	Input	Output	Environmental manifestations	Potential environmental impacts	Environmental Precautions
3	Concrete mattress foundations / concrete floors	Concrete mixing trolleys Concrete pump Concrete vibrator - rebar Ready mix concrete Venture	Equipment gases and exhausts. Oils and greases - noise - waste concrete mix	Equipment gases and exhausts. Oils and greases - noise - thermal stress - waste concrete mix	Increased gases and exhaust - Contamination of soil with bazzot, grease and concrete mix - Increased noise - Exposure of workers to thermal stress	<ul style="list-style-type: none"> • Coordinate working hours during the day to take into account the following matters: <ul style="list-style-type: none"> - Smooth traffic in the streets, especially at peak times - Comfort of residents of nearby residential areas and government institutions adjacent to the project - High temperature or humidity in the summer, which is due to a danger to project workers • Use by workers of personal protective equipment appropriate to the activity • Periodic maintenance of the equipment used and ensuring the safety of electrical connections • Lifting solid waste from the work site and transporting it to the waste collection area in preparation for transfer to approved dumps • Follow occupational safety and health instructions for the use of equipment and traffic safety • Follow all legal requirements, instructions and bulletins received by identifying and evaluating environmental manifestations, assessing environmental impacts and contracting requirements for the environment.

Second: The work and executive activities of the project

M	Activities	Input	Output	Environmental manifestations	Potential environmental impacts	Environmental Precautions
4	Armed carpentry work	Wood/ Nails Blades - nails - saw (carpentry kit)	- Noise - Wood waste - Sawdust	- Noise - Wood waste - Sawdust - Thermal overhang	- Increased noise - Congestion of the work area with solid waste - Exposure of workers to thermal stress	<ul style="list-style-type: none"> • Coordinate working hours during the day to take into account the following matters: <ul style="list-style-type: none"> - Smooth traffic in the streets, especially at peak times - Comfort of residents of nearby residential areas and government institutions adjacent to the project - High temperature or humidity in the summer, which is due to a danger to project workers • Use by workers of personal protective means appropriate to the activity • Collecting and transporting wood waste first Powell and distorting it in the place designated for it on the site until it is sold / transported outside the site • Follow all legal requirements, instructions and bulletins received by identifying and evaluating environmental manifestations, assessing environmental impacts and contracting requirements for the environment.

Second: The work and executive activities of the project

M	Activities	Input	Output	Environmental manifestations	Potential environmental impacts	Environmental Precautions
5	Armed blacksmithing	Scissors - manual fold - welding trans - rebar - wire strap	- Fumes from welding - Noise - The Weight of Hurraria - Iron residues - welding butts	- Fumes from welding - Noise - Iron residues - welding butts - The Weight of Hurraria	- Increased exhaust gases - Increased noise Work area congestion Iron waste - Exposure of workers to thermal stress	<ul style="list-style-type: none"> • Coordinate working hours during the day to take into account the following matters: <ul style="list-style-type: none"> - Smooth traffic in the streets, especially at peak times - Comfort of residents of nearby residential areas and government institutions adjacent to the project - High temperature or humidity in the summer, which is due to a danger to project workers • Use by workers of personal protective means appropriate to the activity • Collecting and transporting wood waste first Powell and distorting it in the place designated for it on the site until it is sold / transported outside the site • Follow all legal requirements, instructions and bulletins received by identifying and evaluating environmental manifestations, assessing environmental impacts and contracting requirements for the environment.
6	Metal Rigidity Installation Works	Metal Tensile Units – Wizaform Panels – Oils and Materials for Tensile Paint – Brushes – Winch – Cars	-Exhaust - Noise - Solid waste (spent Wizafoam panels - damaged brushes) - Hazardous waste (cans of oil and tensile	-Exhaust - Noise - Solid waste (spent Wizafoam panels - damaged brushes) - Hazardous waste (cans of oil and tensile paint	- Increased exhaust and noise - Contact with hard paint materials and residues harmful to health (toxic or carcinogenic) - Congestion of the work area with damaged wisaform plates	<ul style="list-style-type: none"> • Coordinate working hours during the day to take into account the following matters: <ul style="list-style-type: none"> - Smooth traffic in the streets, especially at peak times - Comfort of residents of nearby residential areas and government institutions adjacent to the project - High temperature or humidity in the summer, which is due to a danger to project workers • Use by workers of personal protective means appropriate to the activity • Collecting and transporting the waste of brushes and Wisaform first Powell and distorting them in the place designated for them on the site until they are sold / transported outside the site

			<p>paint materials)</p> <p>- The Weight of Hurraria</p>	<p>and contamination of the site with empty oil cans</p> <p>- Exposure of workers to thermal stress</p>	<ul style="list-style-type: none"> • Collecting empty oil and paint cans in the designated place away from the use of workers until they are disposed of (selling them - returning them to the subcontractor / supplier - an approved sanitary landfill • Follow occupational safety and health instructions for the use of equipment and traffic safety • Follow all legal requirements, instructions and bulletins received by identifying and evaluating environmental manifestations, assessing environmental impacts and contracting requirements for the environment.
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Second: The work and executive activities of the project

M	Activities	Input	Output	Environmental manifestations	Potential environmental impacts	Environmental Precautions
7	Formwork	Ready Mix Concrete- Water Concrete transport vehicles - pump - vibrator	- Gaseous emissions - Noise - Concrete waste - Oils and greases - Thermal overhang - Vibrations	- Gaseous emissions - Noise - Concrete waste - Oils and greases - Thermal overhang -Vibrations	- Congestion of the work area with concrete waste - Contamination of soil with oils and grease - Increased exhaust gases - Increased noise - Exposure of workers to thermal stress - Increased vibrations	<ul style="list-style-type: none"> • Coordinate working hours during the day to take into account the following matters: <ul style="list-style-type: none"> - Smooth traffic in the streets, especially at peak times - Comfort of residents of nearby residential areas and government institutions adjacent to the project - High temperature or humidity in the summer, which is due to a danger to project workers • Use by workers of personal protective means appropriate to the activity • Lifting solid waste from the work site and transporting it to the waste collection area in preparation for transfer to approved dumps • Rationalization of the use of water used in treatment • Periodic maintenance of cars , vibrators and pumps and ensuring the safety of electrical connections • Follow occupational safety and health instructions for the use of equipment and traffic safety • Follow all legal requirements, instructions and bulletins received by identifying and evaluating environmental manifestations, assessing environmental impacts and contracting requirements for the environment.

Second: The work and executive activities of the project

M	Activities	Input	Output	Environmental manifestations	Potential environmental impacts	Environmental Precautions
8	Moisture insulation works with cold bitumen paint	- Cold bitumen brush	- Solid waste (spent brushes) - Hazardous waste: bitumen residue – empty bitumen cans)	- Solid waste (spent brushes) - Hazardous waste: bitumen residue – empty bitumen cans) - Thermal overhang	- Fires - Contamination of the site with solid waste - Exposure of workers to cancerous diseases - Exposure of workers to thermal stress	<ul style="list-style-type: none"> • Coordinate working hours during the day and take the necessary precautions to protect workers from thermal stress as a result of exposure to direct sunlight and high humidity • Good ventilation in indoor and semi-enclosed spaces to prevent fumes from inhaling • Use by workers of personal protective means appropriate to the activity • Collecting bitumen cans (hazardous materials) in the designated place away from the use of workers until they are disposed of (selling them - returning them to the subcontractor / supplier - an approved sanitary landfill) • Collecting solid waste and transporting it to temporary dumping places in preparation for off-site transfer to approved dumps • Follow occupational safety and health instructions when saving and trading bitumen • Follow the occupational safety and health instructions for indoor and semi-indoor work • Follow all legal requirements, instructions and bulletins received by identifying and evaluating environmental manifestations, assessing environmental impacts and contracting requirements for the environment.

Second: The work and executive activities of the project

M	Activities	Input	Output	Environmental manifestations	Potential environmental impacts	Environmental Precautions
9	Soil leveling works	Sun - Grid - Water Tank - Scale	<ul style="list-style-type: none"> - Fumes and gases - Suspended and inhaled dust - Noise - Tooth waste 	<ul style="list-style-type: none"> - Fumes and gases - Suspended and inhaled dust - Noise - Tooth residues - Thermal overhang 	<ul style="list-style-type: none"> - Increased emissions and suspended and inhaled dust - Increased noise - Contamination and occupancy of the site with solid waste - Exposure of workers to thermal stress 	<ul style="list-style-type: none"> • Coordinate working hours during the day to take into account the following matters: <ul style="list-style-type: none"> - Smooth traffic in the streets, especially at peak times - Comfort of residents of nearby residential areas and government institutions adjacent to the project - High temperature or humidity in the summer, which is due to a danger to project workers • Use by workers of personal protective means appropriate to the activity • Follow occupational safety and health instructions for the use of equipment and traffic safety • Lifting solid waste from the work site and transporting it to the waste collection area in preparation for transfer to approved dumps • Periodic maintenance of cars and equipment • Use of noise control methods resulting from the use of equipment (e.g. the use of silencers) • Follow all legal requirements, instructions and bulletins received by identifying and evaluating environmental manifestations, assessing environmental impacts and contracting requirements for the environment.
10	(Compaction Works)	Mashers (foundation - light asphalt - heavy asphalt)	<ul style="list-style-type: none"> - Dust and exhaust equipment - Oils and greases -noise 	<ul style="list-style-type: none"> - Dust and exhaust equipment - Oils and greases -noise - Thermal overhang 	<ul style="list-style-type: none"> - Increased suspended and inhaled dust and exhaust - Increased noise - Contamination of the site with oils and grease - Exposure of workers to thermal stress 	<ul style="list-style-type: none"> • Coordinate working hours during the day to take into account the following matters: <ul style="list-style-type: none"> - Smooth traffic in the streets, especially at peak times - Comfort of residents of nearby residential areas and government institutions adjacent to the project - High temperature or humidity in the summer, which is due to a danger to project workers • Use by workers of personal protective means appropriate to the activity • Follow occupational safety and health instructions for the use

						<p>of equipment and traffic safety</p> <ul style="list-style-type: none">• Periodic maintenance of equipment• Use of noise control methods resulting from the use of equipment (e.g. the use of silencers)• Follow all legal requirements, instructions and bulletins received by identifying and evaluating environmental manifestations, assessing environmental impacts and contracting requirements for the environment.
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Second: The work and executive activities of the project

M	Activities	Input	Output	Environmental manifestations	Potential environmental impacts	Environmental Precautions
11	Transportation of various loads	Cranes - Cars - Hand tools Solar - Gasoline - Oils & Greases	Gases and exhaust - suspended and inhaled dust Oils, greases and diesel from equipment - noise	Gases and exhaust - suspended and inhaled dust Oils, greases and diesel - noise	- Increase in gaseous emissions and suspended dust Site contamination with oils and grease Increased noise	<ul style="list-style-type: none"> • Use by workers of personal protective equipment appropriate to the activity • Cover of vehicles transporting dust and volatile materials • Transportation of solid waste to approved public dumps • Perform the necessary maintenance of the equipment and follow the safety instructions for use • Adhere to the routes specified by the responsible authorities when transporting heavy loads and outside peak hours • Schedule construction shifts so that construction does not interfere with traffic • Traffic scheduling to avoid peak hours on local roads • Follow all legal requirements, instructions and bulletins contained in determining and evaluating environmental features, assessing environmental impacts and contracting requirements for the environment.

Second: The work and executive activities of the project

M	Activities	Input	Output	Environmental manifestations	Potential environmental impacts	Environmental Precautions
12	Office work	Paper – Stationery - Aclacerat	Damage d paper – expendable clerical tools – aclacirat	Solid waste (damaged paper - expendable stationery - aclacers)	Contamination of the site with solid waste (damaged paper - consumable stationery - aclacerat)	<ul style="list-style-type: none"> • Review writing work and refine errors before printing to reduce paper waste • Reuse paper by writing on the blank side of the paper. • Separating paper waste in a special basket and not throwing it in the food waste basket and other waste until it is sold or donated. • Follow all legal requirements, instructions and bulletins contained in determining and evaluating environmental features, assessing environmental environmental impacts and contracting requirements for the environment
13	Using a computer – scanner – printer	Hand tools – electricity – photocopy paper – new spare parts – inks	- Radiation - Dasht paper - Disks - CD - cartridge blank inks - consumable spare parts - damaged devices	-radiation Solid waste (Dasht paper - CDs) - Hazardous waste (cartridge blank inks - consumable spare parts - damaged devices)	- Exposure of workers to hazardous radiation - Contamination of the site with solid and hazardous waste - Exposure of individuals to serious diseases as a result of contact with inks	<ul style="list-style-type: none"> • Good ventilation of work sites • Perform the necessary maintenance of the devices and follow the safety instructions for use • Collecting ink blanks in a place where we are going to do so until they are sold/refilled/donated/ Contracting with a certified sanitary landfill to dispose of them in a safe manner • Follow all legal requirements, instructions and bulletins contained in determining and evaluating environmental features, assessing environmental impacts and contracting requirements for the environment.

Second: The work and executive activities of the project

M	Activities	Input	Output	Environmental manifestations	Potential environmental impacts	Environmental Precautions
14	Use of photocopiers	Hand tools – electricity – photocopy paper – new spare parts – powder inks	-light - Solid waste (Dasht paper - consumable spare parts) - Hazardous waste (empty ink bottles)	-light - Solid waste (Dasht paper - consumable spare parts) - Hazardous waste (empty ink bottles)	- Exposure of workers to hazardous lights - Contamination of the site with solid and hazardous waste - Exposure of individuals to serious diseases as a result of contact with inks	<ul style="list-style-type: none"> • Perform the necessary maintenance of the machines and follow the safety instructions for use • Reshooting on good condition shower paper that does not cause machine failure. • Collect waste in a special basket of paper until it is sold/donated. • Ventilation of the photography room. • Do not open the cover of the machine during filming to keep the eyes from the intense lighting from the machine. • Use gloves when changing ink and when maintaining the machine. • Delivery of ink blanks to the maintenance company. • Follow all legal requirements, instructions and bulletins contained in determining and evaluating environmental features, assessing environmental impacts and contracting requirements for the environment
15	Buffet	Water – electricity – tea – cocoa – lemon – coffee ...) – Cups - Food	- Thermal overhang - Pagasse tea used - Lemon peel - Leftovers - plastic bags - paper waste - broken glass - Cup-washing water	- Thermal overhang - Pagasse tea used - Lemon peel - Leftovers - plastic bags - paper waste - broken glass - Cup-washing water	- Contamination of the site with solid waste - Exposure of workers to thermal stress	<ul style="list-style-type: none"> • Good ventilation and installation of hoods • Perform the necessary maintenance of the devices and follow the safety instructions for use • Conduct medical examinations for all workers preparing or serving food and beverages to ensure that they are free of diseases • Ensure the quality of food and beverages and the expiry date • Inspect the tools and utensils used periodically to ensure their cleanliness and suitability • Follow all legal requirements, instructions and bulletins contained in determining and evaluating environmental features, assessing environmental impacts and contracting requirements for the environment

16	Transfer of workers	Cars – hand tools – water – diesel – gasoline – oils and greases – new spare parts – new rubber	Exhaust gases – consumable spare parts – oils and greases	Exhaust gases – consumable spare parts – oils and greases	<ul style="list-style-type: none"> - Increased exhaust - Site contamination 	<ul style="list-style-type: none"> • Carry out the necessary maintenance for cars and follow the safety instructions for use • Following traffic laws • Follow all legal requirements, instructions and bulletins contained in determining and evaluating environmental features, assessing environmental impacts and contracting requirements for the environment.
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Third: Materials used (regular)

M	Ordinary materials	Environmental manifestations	Potential environmental impacts	Environmental Precautions
1	Timber	Timber - sawdust	<ul style="list-style-type: none"> - Air pollution with suspended and inhaled dust - Contamination of the site with solid waste 	<ul style="list-style-type: none"> • Leveling the ground on which the wood will be stored and making a mattress of wooden veins of equal thickness painted with bitumen to raise the level of wood stacks from the ground to prevent moisture and water from seeping into the wood. • Cover exposed timber with linoleum to protect it from rain. • It is taken into account to store wood in a specific place away from sources of flame according to technical principles • Making corridors between fences and timber towers so that they are free of any obstacles that hinder fire trucks if used. • Provide labor protection during ageing, transportation and use on site • Cleaning the place of the chun as soon as possible • Provide a water source next to the chuen • Do not store flammable materials near wood warehouses. • In the case of long-term storage (main storage for the project for several years), umbrellas are made that are at least 1.5 meters higher than the height of the stack to protect the wood from the sun and rain. • Drainage of rainwater to prevent its accumulation and rise to the level of stored wood. <p>Follow the instructions of the bio system for storage and control of waste</p>

Third: Materials used (regular)

M	Ordinary materials	Environmental manifestations	Potential environmental impacts	Environmental Precautions
2	Reinforcing steel	Reinforcing steel	Soil contamination with iron rustIron Site congestion with iron waste	<ul style="list-style-type: none"> • Ensure the dryness of the warehouse land and its distance from water sources and moisture with the work of a mattress of pallets or wooden veins to raise the level of rebar stacks from the ground surface • Covering the iron with linoleums to protect it from moisture and rain • Choyen by diameter, length and type (Mabroum 37 – Mshshar 52 – Torsteel 52) • Provide means of labor protection during ageing, transportation and use on site • Cleaning the place of the chun as soon as possible • Provide adequate corridors in the areas of Al-Chuwain • Rainwater draining as soon as possible to prevent it from collecting or rising to the level of iron storage. • Follow the instructions of the bio system for storage and control of waste

Third: Materials used (hazardous materials)

M	Ordinary materials	Environmental manifestations	Potential environmental impacts	Environmental Precautions
1	Acetylene, butane and oxygen cylinders	Bottled gases	Explosive and flammable	Storage in a place away from flame sources Providing fire resistance supplies - Prevent smoking in storage areas - - Follow the instructions of the Baya system for storage and handling Follow occupational safety and health instructions -
2	Moisture insulation materials	Insulation and moisture materials (flammable)	fires	Storage in a place away from flame sources Providing fire fighting supplies - Prevent smoking in storage areas - Follow the instructions of the bio system for storage, handling and control of waste - Follow occupational safety and health instructions

Fourth: Equipment used

M	Ordinary materials	Environmental manifestations	Potential environmental impacts	Environmental Precautions
1	Generator	<ul style="list-style-type: none"> - Gaseous emissions - Solar-Oils -noise 	<ul style="list-style-type: none"> – Air pollution with gaseous emissions – Soil contamination with diesel -Increased noise 	<ul style="list-style-type: none"> • Placing generators in an insulated chamber / building room with insulated concrete floor to prevent the leakage of oil and fuel to natural soil • Setting up noise blocking barriers / muffler installation • Making a chimney for the generator room and installing a filter on it to reduce gas emissions • Perform the necessary maintenance of generators periodically and ensure the safety of fuel and oil connections and pipes to prevent leakage into the soil • Follow the occupational safety and health instructions for the operation of generators • Use of appropriate personal protection tasks by workers • Follow all legal requirements, instructions and bulletins contained in determining and evaluating environmental features, assessing environmental impacts and contracting requirements for the environment.
2	winch	<ul style="list-style-type: none"> - Damage to the wirat - Damage to the Limit Switch - Power cables 	<ul style="list-style-type: none"> - Winch suspended parcel fall - Fires 	<ul style="list-style-type: none"> • Ensure the safety of wires and power cables and maintain them periodically • Inspect the winch periodically and do the necessary maintenance for it • Providing fire extinguishers and making sure that the ground is connected • Check the bits, bolts and nuts and make sure they are tied • daily operating and inspection instructions issued Follow the by the Mechanical Affairs

3	Loader/Excavator/Concrete Pump	<ul style="list-style-type: none"> - Oil and diesel leakage - Emissions and exhaust - Noise 	<ul style="list-style-type: none"> - Contamination of the earth with oils and diesel - Increased emissions - Increased noise - Suspended and inhaled dust 	<ul style="list-style-type: none"> • Use of personal protection tasks for workers • Certificate of validity stating that the equipment conforms to environmental conditions • Maintenance work necessary to reduce gas emissions and prevent oil and diesel leakage • Providing a special extinguishing device for the equipment • Follow all legal requirements, instructions and bulletins contained in determining and evaluating environmental features, assessing environmental impacts and contracting requirements for the environment.
4	Transport Cars/ Angel/Double Cab/Mixer Car/Tin Car	<ul style="list-style-type: none"> - Diesel leak - Oils - Emissions and exhaust - Noise 	<ul style="list-style-type: none"> - Contamination of the earth with oils and diesel - Increased emissions - Increased noise 	<ul style="list-style-type: none"> • A certificate of validity stating that the car conforms to environmental conditions • Maintenance work necessary to reduce gas emissions and prevent oil and diesel leakage • Providing a special extinguishing device for the equipment

Fifth: Basic Services

M	Services	source	Environmental manifestations	Potential environmental impacts	Environmental Precautions
1	Water Feeding	Public Network	Waterproofing Wasteful use of water	Wasting natural resources Poor water flow in the surrounding area	<ul style="list-style-type: none"> • Perform the necessary maintenance of connections and valves periodically to prevent water leakage • Immediately report any leak to make the necessary repairs • Perform the necessary maintenance of connections and valves periodically to prevent water leakage • Rationalizing use and following the instructions contained in the environmental awareness bulletins <p>Ensure that water consumption does not affect the area surrounding the project</p>
		Tanks	Waterproofing - Tank corrosion - Wasteful use of water - Use of detergents and chlorine - Use of water transport vehicles - Noise generated by the use of pumps	Wasting natural resources -water pollution - Increased noise	<ul style="list-style-type: none"> • Perform the necessary maintenance of connections and valves periodically to prevent water leakage • Rationalizing the use and immediately reporting any leaks to make the necessary repairs • Follow the instructions contained in the environmental awareness bulletins • Maintaining the cleanliness of water sources and disinfecting tanks and water transport vehicles on a regular basis • periodic analyzes of the water of the tanks used for Conducting drinking to ensure its validity
2	Electrolyte feeding	Public Network	Increased loads Excessive use of electric current	fires Wasting natural resources	<ul style="list-style-type: none"> • Studying the electrical loads required for the project and distributing them so that they do not affect the surrounding environment • Design of the distribution network, including cables, connections and panels according to specifications and technical assets • In the case of using aerial electrical cables, compliance with the requirements and precautions specified by the competent authorities and the laws and regulations governing this shall be taken into account. • Periodic comprehensive maintenance of the network • Providing protective means for workers <p>Rationalizing the use of electricity and following the instructions contained in the environmental awareness bulletins</p>

	Generators	<p>Increased loads Excessive use of electric current</p> <ul style="list-style-type: none"> - Gaseous emissions - Liquid waste (gasoline - diesel - oils and greases) - Gaseous emissions - Heat emissions - Noise 	<p>fires</p> <p>Wasting natural resources</p> <ul style="list-style-type: none"> - Increased gas and thermal emissions - Contamination of soil with diesel, oils and grease - Increased noise 	<ul style="list-style-type: none"> • Studying the electrical loads required for the project and distributing them so that they do not affect the surrounding environment • Design of the distribution network, including cables, connections and panels according to specifications and technical assets • In the case of using aerial electrical cables, compliance with the requirements and precautions specified by the competent authorities and the laws and regulations governing this shall be taken into account. • Periodic comprehensive maintenance of the network • Providing protective means for workers <p>Rationalizing the use of electricity and following the instructions contained in the environmental awareness bulletins</p>
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Fifth: Basic Services

M	Services	Solid waste	source	Environmental manifestations	Potential environmental impacts	Method of dealing with solid waste	Environmental Precautions
3	Solid waste handling	a) Dust and solid waste	Earthworks and backfilling - crushing works Breaking bricks and tiles	Dust and solid waste - suspended and inhaled dust	Increase suspended and inhaled dust Site occupancy	Transport of dust and solid waste to public dumps	<ul style="list-style-type: none"> - Waste is collected in a designated place until it is transported to public dumps - Providing means of protection for workers - Contracting with a dust transport contractor to abide by the following: <ul style="list-style-type: none"> - Cover car surfaces with impermeable tarpaulin - Provide a certificate of validity for cars and their compliance with environmental conditions - Provide proof of dealing with an approved dump or provide bonuses stating the dumping of waste in the dump - Follow the instructions of the environmental system, environmental instructions and awareness bulletins for solid waste
		b) Cutting wood of different sizes and sawdust	Carpentry work	Timber - sawdust	Site occupancy - fires - Increased suspended and inhaled particles	Collection and transportation of wood waste off-site	<ul style="list-style-type: none"> - Sorting wood for different lengths for easy handling - Choen wood waste in a clean place away from the flame and transport it outside the site - Collecting sawdust in clean bags and storing them in a place away from the source of flame and transporting them outside the site - Follow the instructions of the environmental system, environmental instructions and awareness bulletins for solid waste
		d) Metal and plastic cans (hazardous waste)	Painting works	Organic paints and solvents	Site occupancy - soil, water and air pollution - poisoning and cancer diseases	We assemble and transport them off-site by the subcontractor	<ul style="list-style-type: none"> - Collecting empty cans in a designated place until they are transported outside the site - Providing means of protection for workers - Follow the instructions of the environmental system, environmental instructions and awareness bulletins for solid waste

Continue Fifth: Basic Services

M	Services	Equipment required	Environmental Precautions
4	Staff's subsistence and accommodation	Offices for employees - Toilets - Safe drinking water - Buffet -Dressing places for workers - Places for workers to rest	<ul style="list-style-type: none"> • Selecting and determining the location of the workers' residence so that it is above the wind for the sites of the implementation of the works to protect it from pollutants that may result from the implementation • Providing offices for workers and workers' living rooms equipped with suitable comfortable furniture , lighting units and appropriate ventilation, taking into account that the number of employees in each office / room is appropriate to its space • Provision of safe drinking water • Providing suitable toilets for workers and workers at a rate of one toilet per 20 workers with periodic cleaning • Providing dressing places for workers • Provide suitable places for workers' rest • Conduct periodic medical examinations for all workers preparing or serving food and beverages to ensure that they are free of diseases • Ensure the quality, expiry date and compliance of food and beverages with health conditions • Inspect the tools and utensils used periodically to ensure their cleanliness and suitability • Follow the instructions contained in the environmental bulletins regarding the rationalization of electricity consumption and the use of air conditioners • Perform the necessary maintenance of the devices used and follow the occupational safety and health instructions for use • Contracting with a company to combat insects and reptiles on a regular basis • Providing first aid supplies • Providing a trained paramedic on first aid at the work site • Periodic maintenance of water, sewage and electricity networks • Providing the necessary cleaning tools (brushes - wipers - soap - technician - Dettol etc.) • Follow all legal requirements, instructions and bulletins contained in determining and evaluating environmental features, assessing environmental impacts and contracting requirements for the environment.

Sixth: Adjacent areas that need special environmental precautions

M	Contiguous	Environmental precautions
1	- Surrounding streets	<ul style="list-style-type: none"> • Making a fence separating the work area from the surrounding streets. • Placement of necessary warning signs • Make the necessary plans to regulate traffic in and around work areas • The streets surrounding the project are not occupied with the company's cars and equipment • Coordination with traffic officials to facilitate the entry and exit of cars and equipment for the project. • Use silent equipment to reduce noise • activities that produce noise Schedule

Seventh: Subcontractors in the project

M	Activities	Subcontractors	Environmental precautions required of the contractor
1	Armed carpentry work	Executing Contractor	<ul style="list-style-type: none"> • Coordinate working hours during the day to take into account the flow of traffic, the comfort of residents, government institutions adjacent to the project, and the high temperature • Use by workers of personal protective means appropriate to the activity • Collecting and transporting wood waste first Powell and distorting it in the place designated for it on the site until it is sold / transported outside the site <p>Follow all legal requirements, instructions and bulletins received by identifying and evaluating environmental manifestations, assessing environmental impacts and contracting requirements for the environment</p>
2	Armed blacksmithing	Executing Contractor	<ul style="list-style-type: none"> • Coordinate working hours during the day to take into account the flow of traffic, the comfort of residents, government institutions adjacent to the project, and the high temperature • Use by workers of personal protective means appropriate to the activity • Collecting and transporting wood waste first Powell and distorting it in the place designated for it on the site until it is sold / transported outside the site <p>Follow all legal requirements, instructions and bulletins received by identifying and evaluating environmental manifestations, assessing environmental impacts and contracting requirements for the environment</p>
3	Formwork	Executing Contractor	<ul style="list-style-type: none"> • Coordinate working hours during the day to take into account the flow of traffic, the comfort of residents, government institutions adjacent to the project, and the high temperature • Use by workers of personal protective means appropriate to the activity • Lifting solid waste from the work site and transporting it to the waste collection area in preparation for transfer to approved dumps • Rationalization of the use of water used in treatment • Periodic maintenance of cars , vibrators and pumps and ensuring the safety of electrical connections • Follow occupational safety and health instructions for the use of equipment and traffic safety instructions and bulletins <p>Follow all legal requirements, in received by identifying and evaluating environmental manifestations, assessing environmental impacts and contracting requirements for the environment</p>

4	Moisture insulation works with cold bitumen paint	Executing Contractor	<ul style="list-style-type: none"> • Coordinate working hours during the day and take the necessary precautions to protect workers from thermal stress as a result of exposure to direct sunlight and high humidity • Good ventilation in indoor and semi-enclosed spaces to prevent fumes from inhaling • Use by workers of personal protective means appropriate to the activity • Collecting bitumen cans (hazardous materials) in the designated place away from the use of workers until they are disposed of (selling them - returning them to the subcontractor / supplier - an approved sanitary landfill) • Collecting solid waste and transporting it to temporary dumping places in preparation for off-site transfer to approved dumps • Follow occupational safety and health instructions when saving and trading bitumen • Follow the occupational safety and health instructions for indoor and semi-indoor work <p>Follow all legal requirements, instructions and bulletins received by identifying and evaluating environmental manifestations, assessing environmental impacts and contracting requirements for the environment</p>
5	Transportation of various loads	Executing Contractor	<ul style="list-style-type: none"> • Use by workers of personal protective equipment appropriate to the activity • Cover of vehicles transporting dust and volatile materials • Transportation of solid waste to approved public dumps • Perform the necessary maintenance of the equipment and follow the safety instructions for use • Adhere to the routes specified by the responsible authorities when transporting heavy loads and outside peak hours • Schedule construction shifts so that construction does not interfere with traffic • Traffic scheduling to avoid peak hours on local roads • Follow all legal requirements, instructions and bulletins contained in determining and evaluating environmental features, assessing environmental impacts and contracting requirements for the environment.

Eighth: Organizational work in the field of environment

- Project Manager: Eng. Abu Ela Issa Mohammed

- Environment Supervisor: Mr. Osama Ahmed Ali Hassanein

**.Site Cleaning and Arrangement Supervisor: Mr - Osama Ahmed
Ali Hassanein**

Table (1): Hazardous Substances and Waste Register Form in the Establishment:

1. Hazardous materials:

- List of hazardous materials used , their environmental properties and the producer.
- Annual consumption of hazardous materials.
- Description of storage packages.
- Description of storage places.
- Methods of handling hazardous materials.
- Method of disposal of empty packages.

2. Hazardous waste:

- A description of the hazardous waste in each unit and the total quantities at the facility level.
- Type and quantity of waste (ton/year) and its size.
- Place of storage of hazardous waste.
- Description of storage packages.
- How to dispose of hazardous waste and the contracting parties.

3. Emergency Response Plan

- Safety equipment and trading risk reduction procedures.
- Means of extinguishing fire and dealing with spills.
- Methods of transportation and salvation.
- Monitoring program.

Environment Officer

Name: Osama Ahmed Ali Hassanein

Signature:

Date:

Version Number:

Issue Date :

Tenth: Laws and regulations related to the project in the field of environment

1- n the field of environmentLaws and decisions issued i

- 1 .Law No 4 of 1994 on the protection of the environment, some of its provisions are amended by Law No9 of 2009 .and Law No 105 of 2015 .
- 2 .Executive Regulations of the Environmental Law No4 of 1994issued 's Decree No'by Prime Minister338 of 1995and amended by Decisions .No495 of 2001 '1741 of 2005 .No '1095 of 2011 .No '710 of 2012 .No '964 of2015 .No '544 of 2016 .No '618 of 2017 .and No '1963 of 2017.
- 3 .Law No .102 of 1983.on natural reserves
- 4.Law No .48 of 1982the protection of the Nile River and waterways on .from pollution and its executive regulations issued by Resolution No8 of 1983 .amended by Resolution No 402 of 2009 .and Resolution No 92 of 2013.
- 5 .Law No .93 of 1962ts executive on the disposal of liquid waste and i .regulations issued by Resolution No649 of 1962amended by ' .Resolution No44 of 2000.
- 6 .Law No .52 of 1981on the prevention of smoking harms, amended by .Law No85 of 2002 .and Law No 154 of 2007.
- 7 .Resolution of the Minister of Health No .291 of 2010issuing the .executive regulations of Law No52 of 1981regarding the prevention of smoking harms, amended by Resolution447 of 2011.
- 8 .Law No .38 of 1967 .regarding public hygiene amended by Law No 10 of2005 .Law No '106 of 2012 .and Law No 47 of 2014and its executive ' .regulations issued by Resolution No134 of 1968.
- 9 .Prime Minister's Decree No .3005 of 2019establishing the Waste .Management Regulatory Authority
- 10 .Resolution of the Minister of Environment No .19 of 2016regarding terminating the administrative expenses necessary to review de environmental impact assessment studies for projects amended by .Resolution No75 of 2017.
- 11 .Decision of the CEO of EEAA No .26 of 2016regarding the work of approved by the Board of Directors the environmental classification lists of the Environmental Affairs Agency to determine the administrative expenses necessary to review the environmental impact assessment .studies for projects subject to environmental classification
- 12 .Resolution .1129 of 2019.on climate modifications
- 13 .Telecommunications Law No .10 of 2003including the necessity of) environmental assessment of telecommunications networks and mobile (stations

14. Protocol amending the requirements for the installation of mobile
stations on base stations 17/2/2005
15. Labor Law No .12 of 2003 Book Five: Occupational Safety and
(Health and Securing the Work Environment)
16. Lists of hazardous wastes attached to the decision of the Minister of
Health and Population No 192 of 2001 .solution No as amended by Re
669 of 2015 .
17. Law No .66 of 1953. on mining and quarrying facilities
18. Law No .86 of 1956. on mining and quarrying facilities
19. Law No .24 of 2002. on mines and quarries
20. Law No .27 of 1981 on the employment of workers in mines and
.quarries
21. The Mineral Resources Law No .198 of 2014 and its executive
.regulations issued by Resolution No 1657 of 2015.
22. Resolution of the Minister of Manpower No .134 of 2003 on the
ing identification of establishments that are committed to establish
functional bodies and committees for occupational safety and health and
securing the work environment, and the bodies that undertake training
.and the rules that follow in this regard
23. Resolution of the Minister of Manpower No .126 of 2003 on statis
and models of work injuries, serious accidents and occupational and
.chronic diseases
24. Resolution of the Minister of Manpower No .221 of 2003 on the safety
limits, requirements and precautions necessary to ward off physical,
biological and negative hazards and secure the mechanical, chemical, b
.work environment
25. Decree No .380 of 1975 on the general requirements that must be met
.in industrial and commercial shops and other areas of rest
26. Table of occupational diseases attached to Law .79 of 1975.
27. Traffic Law No .66 of 1973 .as amended by Laws No 155 of 1999 .No
121 of 2008 .No 59 of 2014 .No 142 of 2014 and its executive regulations
.issued by Resolution No 2777 of 2000 .
28. Law No .63 of 1974 ed by on electricity sector installations, amend
.Law No 204 of 1991.
29. Law No .102 of 1986 on the establishment of the Authority for the
.Development and Use of New and Renewable Energy
30. Law No 3 of 1982. on Urban Planning and its executive regulations
31. Law No .106 of 1976 and organization of construction on the direction
.work
32. Law No .89 of 1998 on tenders and auctions and its executive
regulations

- 33 .Law No .119 of 2008Unified Building Law and its executive regulations issued by Resolution No144 of 2009.
- 34 .ifications related to the activityStandard codes and spe .
- 35 .Decisions and regulatory instructions issued by the Chairman of the . Board of Directors for occupational safety and health, environment and .quality
36. Guide to the foundations of environmental protection in the . second edition July -company's activities 2003.
- 37 .Guide to Environmental Reserves for Business and Main Activities in . Second Edition September –Projects and Workshops 2007.
38. April -Asphalt mixing plants and road paving guide .2004.
- 39 .rsana mixing plantsGuide to Ha .
- 40 .Resolution of the Minister of Environment No .75 of 2017regarding .the cancellation of Resolution No63 of 2017and amending some .provisions of Resolution No19 of 2016
41. Electricity Law No. 87 of 2015 and its executive regulations issued by Resolution No. 230 of 2016.

2- Company Manuals

Issue Date	Version number	Laws and regulations related to the project in the field of environment	M
	<u>Company Guides</u>		
1	Guide to the foundations of environmental activities protection in the company's	2	٢٠٠٣-July
2	Guide to environmental precautions for the main works and activities of projects and workshops	2	٢٠٠٧-Sep

Eleventh: Environmental Accidents and Contingency Plan

1. Expected environmental incidents:

1. Fires resulting from the use of wood, gas cylinders, gasoline, diesel and flammable materials
2. Car overturning concrete/asphalt
3. Leakage / overflow in bathrooms (drinking water/wastewater)

2. Fire Communication and Handling Officer:

Administrative security officials in the project at the time of the incident.

3. Who can contact in case of environmental emergencies

M	Contact	Administrator Name	phone number
1	Project Manager	Abu Ela Issa Mohammed	01065713171
2	Environment Manager for chthe company's bran	yasser ahmed eIsawy	01066214414
3	Fire Department		088-322837 - 180
4	Ambulance		123
5	The police		122
6	hospital		088-2322600
7	Water Facility		125
8	Electricity		088-2336611

Twelfth : Forms used

- All forms contained in the procedures of the Environmental Management System
- Subcontractors Awareness Forms

Project Manager

Signature /

Engineer / Abu Ela Issa Mohammed

Emvirommet nameger

Signature /

Engineer / yasser ahmed eIsawy