



Environmental and Social Compliance Sheet

Medical Waste Treatment Facility

July 2021 - September 2021



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Potential Impact	Proposed Mitigation Measures	Status of Compliance
General Impacts	Standard Operation Procedures (SOPs) should be followed	JSC complied with all required SOPs and followed the Operation Manual instructions.
Odor	Transfer the HCW from Medical centers to treatment facility, and treated waste from treatment facility to the landfill daily, no HCW is accepted to be stored for more than 24 hours	The transfer of HCW and treated waste is achieved on a daily basis.
	Evacuate the leachate tank periodically (weekly)	There is no leachate at the medical waste facility, the generated wastewater is from the washing of floors at the end of each day and it can be considered as wastewater. The wastewater is evacuated once the tank is full and drained to the nearest wastewater network.
	Washing the unloading area and leachate tank periodically	The washing is carried out every day, but this washing is carried out for floors including water and detergents and disinfection materials.
Deterioration of air quality by dust caused by waste collection vehicles	Ensure periodic maintenance of autoclave/microwave machine as well as the ventilation system	The microwave was operated well in the report period
	Pavement/maintain of access road	The access road is not well paved; it is deteriorated in many sections.
	Schedule the movement of HCW vehicles carefully	The movement of HCW vehicles are scheduled and has no impact or traffic.
	Control the speed of HCW Vehicles	The max allowed speed limit is 50 km/hr outside the facility.



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	Fully close of the HCW vehicles when transport the waste	The vehicles are fully closed.
Contamination of groundwater and soil by leachate	Sampling and testing of groundwater	The groundwater quality is tested every 6 months. All chemical and biological results were found within the regulatory standard of drinking water except chloride and nitrates which has slightly high concentrations.
	Maintenance of the leachate tank and collection system monthly	There is no need to maintain the leachate tank monthly, but periodic checks are made to ensure there is no leakage from the tank or the collection pipes.
	Chlorination of leachate before evacuation.	Disinfection materials are added everyday during washing.
	Evacuate and transfer the leachate to WWTP	There is no leachate at this facility, only wastewater resulted from the washing of floors at the end of each day. The wastewater is transferred and drained to the nearest wastewater network.
Noise impacts caused by Waste Vehicles and Electrical Generator	Limiting operation works to daytime	The facility works in day time only. No works at the night.
	Regular maintenance of Autoclave, vehicles and generator	Regular maintenance is made.
	Schedule the movement of HCW vehicles carefully away of rush hours and in accordance with the TS vehicles	The movement of HCW vehicles are scheduled and has no impact or traffic.
Workers Health and Safety	Comply with the Palestinian Labors Law in terms of workers health and safety, working hours, and workers insurance and risk allowance.	Complied, safety measures are followed at the site, PPE is provided to workers, and risk allowance is paid for workers of the medical waste treatment facility.
	Use of PPE wear by workers with fully commitment, special masks and overall	Special PPE is provided including overall wear and masks.



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	wear should be provided for workers who work inside the facility	
	Provide the required vaccination for all workers and drivers of the HCW treatment facility, and periodic examination should be made for them	All workers who work in the medical waste treatment facility was vaccinated against Tetanus and Hepatites.
	Provide First Aid kits and fire extinguishers.	First Aid box was provided at the site.
	Conducting an operation plan, safety plan and emergency response plan for workers and for any potential fires inside the treatment facility.	Operation, safety, emergency plans are in place and followed.
	Adding complaint log for workers	Workers can use any of JSC-KRM uptake complaints channels for complaining.
	Archive of all quantities of received HCW, and don't accept any unsigned pins (don't have a printed sign)	All received bags are signed, the sign includes the time and date and the source (which clinic) and the weight of HCW.
	Drivers of HCW should be comply with the PPE wear	Complied, all workers are wearing PPE
	Restricting the access for any un-authorized person into the treatment facility	Only authorized workers can access to the facility. The facility is closed.
	Training program for (Workers and drivers, Operation Engineer, and the mechanical technicians)	Instructions are provided on a daily basis.
Transportation and Traffic/Accidents	Schedule the movement of HCW vehicles carefully	The movement of HCW vehicles are scheduled and has no impact or traffic.
	Strict monitoring to the road accidents and install signs	No accidents were reported.



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	Implement Safety measures to protect people from injury/infection	No injuries were reported, and safety measures are followed.
Flora and Fauna	Revegetation/Planting around the treatment facility	No trees were planted around the facility, but the surrounded area has different traditional herbs.
Expected fires and smoke	Preparation an emergency response plan for any potential fires inside the treatment facility	Emergency response plan is in place.
	Provide First Aid kits and fire extinguishers	First aid box and fire extinguishers are provided at the site.
Local Community Health	Transfer the HCW and the treated waste daily	The transfer is achieved on a daily basis, no storage at the site.
	Close the storage pins during transfer the HCW	The bags are tight, and pins are closed.
	Fully close of the HCW vehicle during waste transfer	The vehicles are fully closed.
	Printing a warning sign on HCW pins, and vehicles to indicate it contains infectious HCW.	All vehicles has the hazardous sign printed on the external body of the vehicle.
	Periodic maintain the pins and vehicles in order to prevent any leakage	No leakage was reported.
Inconvenience of local community	Grievance uptake Channels to be created in the site for any coming complaints during operation	JSC-KRM complaints channels are provided and they are available for local community and workers.
	Information sharing with the community	Some of Facebook posts were posted on the JSC-KRM Facebook page.
	Sort and process the received complaints	JSC-KRM are sorting the received complaints, but no complaints were received regarding to the medical waste facility.
	Ensure documentation for any received compliant	All received complaints are registered.



ANNEX I: Groundwater Quality Results Medical Waste Treatment Facility in Khan Younis

Date of Results: 15-04-2021

Date of sampling: 28-03-2021

Table of Results – Groundwater quality Medical Waste Treatment Facility in Khan Younis

Parameters	Unit	Results
pH	-	7.33
EC	μS/cm	5450
TDS	mg/l	3400
TSS	mg/l	Nil
BOD	mg/l	<10
COD	mg/l	50
TKN	mg/l	Nil
NH ₄ -N	mg/l	Nil
NO ₃	mg/l	150
Total N	mg/l	34
PO ₄ -P	mg/l	Nil
SO ₄	mg/l	420
K	mg/l	5
Na	mg/l	750
Cl	mg/l	1490
FC	mg/l	Nil
Alkalinity	mg/l	120
Cd	mg/l	< 0.002
Zn	mg/l	<0.001
Pb	mg/l	< 0.005
Cu	mg/l	0.001
Hg	mg/l	ND
Cr	mg/l	< 0.001
As	mg/l	ND
Al	mg/l	0.002
Fe	mg/l	< 0.007
Ni	mg/l	< 0.002
Mn	mg/l	< 0.002
CN	mg/l	ND

ANNEX II: IMAGES



Unloading of medical waste in the treatment facility, hence the vehicle is fully closed and has the hazardous sign printed on its external body



Also, the JSC name and contact numbers are printed on the external body.
Hence, the driver is provided by PPE



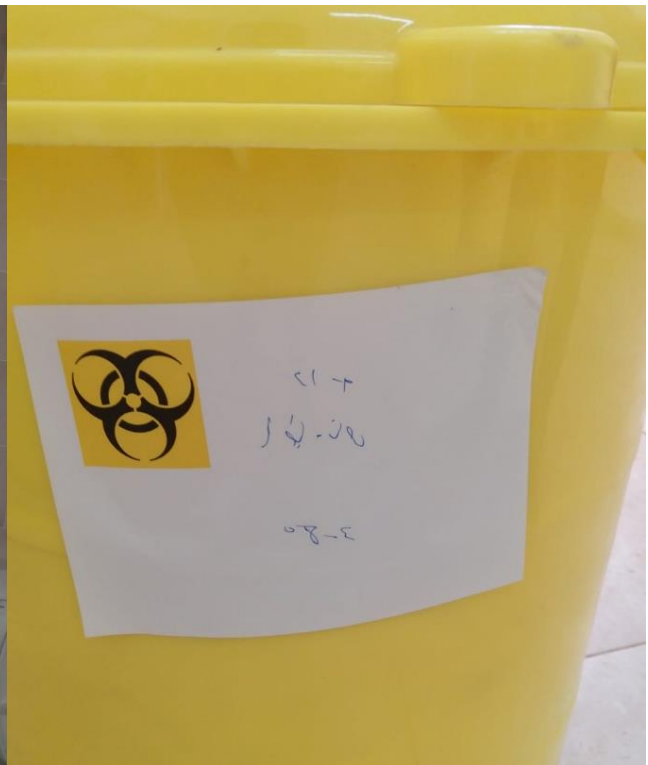
Worker operating the microwave



Disinfection of the vehicle at the end of the trip



Shower for workers at the end of the working day, all cleaning materials are provided also



One of received containers; the mentioned information on the printed paper is the date, source (clinic), and the weight in addition to the hazardous sign