



2.1

Environment Policy

	SYNCHRO Engineering Co. Ltd شركة ساينكرو الهندسية المحدودة	Documents No.: SYN/MNL-2011-004		
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1.0 INTRODUCTION

General

It is the policy of SYNCHRO to regard its employees, the protection of assets and the environment with equal priority and importance as any operational aspect of SYNCHRO activities. SYNCHRO assures all employees that SYNCHRO management will, as far as possible, follow operation practices that shall protect the environment whilst maintaining efficient operation and standards of quality.

Environment information and training will be provided at no cost to the employee or visitors. All levels of management shall be held accountable for their environmental responsibilities. To achieve this, SYNCHRO Company procedures are mandatory for all personnel. All levels of management, senior and supervisory are responsible for implementing any environmental requirements.

Any environmental requirements identified in the Environmental Management System which are not implemented will be in direct conflict with this policy statement and as a consequence line management, line supervision and all individual employees will be held accountable.

All employees are required to understand and promote the environmental standards of the company at all time and to cooperate with the companies Environmental Management System in all aspects that must include compliance with the Laws of Sudan and International Environmental Standards on all the worksites and its related areas.

2.0 ENVIRONMENTAL IMPACT ASSESSMENT

2.1 Impact on Water

Housing, production, processing facilities and the raised compacted roads have altered the drainage pattern of the area significantly.

2.2 Impact on Atmosphere

The amount of the pollution in the atmosphere at the project area is determined by two classes of factors. These are the nature of the relevant emissions and the state of the atmosphere. The characteristics of the emissions that have bearing on the resulting air pollution include the physical and chemical nature of the pollutants as well as the shape of emission area, duration of the release and the effective height

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at which the injection of pollutants occur. Once the pollutants are released and the effective height at which the injection of pollutants occur, their dispersion is controlled by the state of the atmosphere. This includes the air motion (wind and turbulence), the temperature stratification that define the atmospheric stability as well as the depth of the surface mixed layer. The other meteorological parameters, such as humidity, solar radiation, precipitation can affect the atmospheric ability to transport, dilute, transform and remove pollutants.

2.3 Noise Impact

The current noise source in the surroundings of the project site is due to traffic vehicles only. During the construction period, various machines and vehicles will produce noise with values ranging between 70 and 85 dB. The produced noise during the construction period will not have impact on the surrounding environment except during the construction; hence the produced noise may temporarily affect wildlife in the local area.

2.4 Impact on Soil and Vegetation

During construction of project facilities, the destruction of vegetation (woody and herbaceous) will occur. This is a permanent impact throughout project execution. Soil grading and compaction will permanently alter the soil function. Additional impact on vegetation is likely to take place due to camp dwellers' domestic waste. Excavation of evaporation ponds will result in permanent loss of soil and vegetation. The construction of pipelines including clearance of construction strips, construction of roads, excavation of pipe trench and back filling will destroy the vegetation and disturb the soil surface.

2.5 Impact on Wildlife

The presence of numerous burrow pits will have some positive impacts on birds and wildlife by making large quantities of water available over a large stretch of land. Negative impacts include the introduction to a previously pristine area, pollution especially garbage, oil spills and evaporation ponds.

Roads improved accessibility to the area making habitat destruction and hunting easier.

2.6 Socio- Economic Impacts

Petroleum field production facilities could induce some socio-economic effects, but the direct impacts are unlikely to be significant. The indirect impacts would be

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more significant: socially, the project will benefit the more enterprising, articulate and educated members of society while further marginalizing the agro-pastoralists in the area.

3.0 MITIGATION MEASURES

3.1 Recommended Measures

Conceptual considerations

Sound realistic mitigation proposals are based on conceptual considerations stemming from the physical, natural and cultural aspects typical of the environment where the developmental project is housed. The main features of the project area are highlighted as follows:

- The rainfall of the region is seasonal, torrential and concentrating during a few months.
- During the rainy season the whole area is transformed into a vast swamp with a considerable flow of water.
- There are certain defined tribal migratory routes.
- The area is rich in biodiversity specially the water fowl.
- The ground water of the Nubian sandstone aquifer exists in unconfined formations.
- There are local laws, rules and regulations about environmental protection.
- The local inhabitants have particular customs, life styles and religious believes.

Taking all the above factors, *inter alia*, on board as guidelines, a set of mitigation measures is proposed for the envisaged impacts due to project construction on the atmosphere, water, soil, vegetation, wildlife as well as the socio-economic matrix.

Recommended Measures for Mitigation

Water

To avoid the cumulative effects of the project in the water sector the following recommendations are put forward:

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- Chemically contaminated run-off should be intercepted and discharged where it will not leak to, and contaminate, surface and ground water.
- Waste oil, lubricants and chemicals should be removed to a waste management facility where they could be recycled, incinerated, decontaminated and/or decomposed safely. If there is no such facility available, the contractor should propose, demonstrate and use an environmentally safe system of hazardous waste disposal.
- Housing and processing sites as well as the extensive raised compacted road system has altered the natural drainage pattern extensively. Using contour maps the negative impacts could be alleviated by ensuring the free flow of water, by constructing culverts or bridges. This is mainly in the form of " sheet flow" in an extremely flat topography. During the field excursion it was noticed that several sections of the roads have been washed away in storm water runoff.
- Evaporation ponds should be lined to ensure that contaminants do not reach ground water. They should also be covered by appropriate netting; from birds and wildlife. It should be absolutely clear that under no circumstance water from evaporation ponds would be injected underground. Contaminating the Nubian sandstone aquifer will just be a matter of time. As stated above water exists in unconfined aquifers.
- A closed system should be adopted and this water should be piped back and reused in production wells as well as a measure of avoiding land subsidence.
- A further point to be considered is to seal off all water aquifers prior to well completion or abandonment.

Atmosphere

The pollutants are mainly dust, noise and exhaust gases. The impact of these pollutants is temporary and is expected to disappear with the completion of the project construction.

Noise

No feasible impact due to noise is envisaged during construction and operation phases, no mitigation measure is required.

Soil and Vegetation

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The soil needed for elevated pads should be taken from the excavated evaporation ponds. During back-filling, care should be taken to recover as far as possible the former compactness of soil. In cases where extra soil is brought from other areas, care should be taken to choose a surface that is either devoid of vegetation cover or sparsely vegetated. The distribution of such sites should be taken into consideration as the resultant burrow pits could be of potential benefit as water storage reservoirs. As oil leak from the pipeline is a potential negative impact, mitigation measures would entail the installation of control valves within the pipeline system. Regulations on forestry and wildlife should be strictly enforced.

Mitigation for Wildlife

Living and production areas should be cordoned off that wildlife cannot reach garbage sites and evaporation ponds. Ponds should be covered by appropriate netting from birds. Access to roads, either regulated or prevented should be made difficult to commercial traffic. Loud noises should be avoided especially during nesting and mating seasons.

Mitigation Measures for Socio-economic

- Signboards should be used to explain to the project workforce as well as local traders what is expected and what is forbidden (waste disposal, charcoal burning, etc). Such signboards should be renewed when they become obliterated by rain and faded by sunshine. That would be a small price to pay compared with the negative consequences of inappropriate behavior by the workforce and local traders. Of course, the signboards would only be the symbol of the policy; the policy itself would have to be known, understood, accepted and implemented by the concerned people.
- SYNCHRO should bring in all their requirements. The contract document should make provisions for safe disposal of waste, throughout the project period, and site restoration before demobilization of the workforce. Hunting and wood-cutting should be forbidden and workforce within the project area, even out of normal working hours. Licensing of restaurants and tea shops should be associated with strict sanitary regulations, especially clean water. There should be disposal bins for garbage and other wastes. Traders should be trained in safe techniques of waste management.
- A waste management plan must be produced by the contractor, and approved and observed by the concerned technical authorities. It will not be acceptable for

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scrap metal and waste oil to be dumped into the open. Non-hazardous waste should be compacted and entrenched in a proper landfill site over impermeable sub-soil, well away from surface water resources.

- The recruitment of the workforce should be made as much as possible from the local population. Doing so would infuse cash into the local economy and would pre-empt, at least partially, the need for out-migration. The contractors should adhere to Sudanese employment rules and regulations and refrain from discrimination against the local workforce in terms of rights and obligations. Sudanese laws regarding employment contracts, redundancy payment, sick leaves, working hours, etc, should be strictly observed by the contractors.

3.2 Environmental Monitoring Plan

Development of Environmental Monitoring Plan

It is necessary to develop an Environmental Monitoring Plan (EMP) during construction, commissioning and system operation. Monitoring is required on those aspects, where either negative impact is likely to occur, or where the effects of the facilities are difficult to quantify at present.

Objectives of the Environmental Monitoring Plan

- To define activities and parameters to be monitored.
- To monitor the implementation of the mitigation measures and impact during construction and operation phases of the project.
- To determine methods for implementation.
- To estimate the cost of implementing EMP.
- To define the institutional aspects of EMP.
- To implement pollution control measures.

Parameters to be monitored

The EMP shall be concerned with certain parameters during construction and operation periods. These include:

- a) Ambient air analysis, odor and noise levels at project facilities boundary and in the surrounding environment.

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- b) Hydrocarbon gas sensing, odor, water effluents and noise levels monitoring and analysis within the operation areas during system operation.
- c) Noise level and dust monitoring in the ambient air during construction.
- d) Sewage-accepting water body quality monitoring, including dissolved oxygen, BOD suspended particulates and other pollutants.
- e) Implementation of pollution control measures.

Institutional Aspects of Environmental Monitoring Plan

It is recommended that the various environmental monitoring activities should be carried out by an independent body appointed by the Owner. The conceptual approach to ensure sustainability in the implementation of monitoring activities is:

- a) To use wherever possible – existing local expertise to carry out environmental monitoring plan.
- b) To establish regular links with competent institutions (laboratories, specialized ministries and departments) to carry out specific analyses lying beyond the capacities of project staff.

Implementation Schedule

The implementation of the EMP should commence as early as possible. The frequency of monitoring any parameter is a function of the type and rate of change of that particular parameter. It is proposed to implement the monitoring provisionally for one year. Based upon an evaluation of the reports, the program may be modified.

Recording and Reporting

Data for each parameter will be entered into data collection forms. Monitoring reports accruing from the data are to be submitted annually.

4.0 ENVIRONMENTAL OBJECTIVES

All employees of SYNCHRO are required to understand and promote the environment standard and try to achieve the following objectives:

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- a) Activities will comply with all applicable laws and regulations regarding environment of Sudan, satisfy the Owner's standards and requirements for environment.
- b) Felling and damaging of trees and vegetation shall be minimized and only limited to the construction areas.
- c) The damaged place shall be restored as soon as possible.
- d) Wasted material and dumping effluent shall be sent to designated place.
- e) Effective measure shall be taken for oil tanks and slush pool to avoid oil leaking or other accidents.
- f) The EMS should be implemented during construction to minimize the environmental risk and the impact as far as possible.

5.0 ORGANIZATION AND RESPONSIBILITIES

5.1 Organization

The project manager is the highest level of environment management. HSE manager is the responsible person for environment affairs working on daily basis, leading HSE department to manage and deal with environment affairs throughout the project execution.

5.2 Responsibility

5.2.1 Project Manager

- a) Responsible for establishing environmental policy and the environmental objectives and targets.
- b) Issue the instructions for understanding the environmental policy, objectives and targets.
- c) Take corresponding measures to ensure that the EQM is implemented.
- d) Provide support and resources essential to the implementation and control of the EQM, such as human resources, financial resources, and training.
- e) Check up and monitoring the implementation of the above instructions.
- f) Adhere up to monitoring, recording and auditing.

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- g) Responsible to fix a need for the audit to the program and audit the system, and instigating somebody to amend and improve the program according to the audited result.
- h) Appoint the HSE department manager.

5.2.2 HSE Department Manager

- a) Represent the project manager to exercise authority in environmental activities.
- b) Ensure that the EMS is established, implemented and maintained and ensuring the effective environmental management.
- c) Propagate and carry out environmental laws, legislation and regulations of Sudan or local government and HSE policy of SYNCHRO.
- d) Organize employees' training.
- e) Organize employees to exercise for emergency.
- f) Organize regularly environment check.
- g) Organize regular environment management meeting.
- h) During implementation of the program, report the performance of the EQM to project manager.
- i) Appoint the environmental specialists and engineers.

5.2.3 Environmental Specialists and Engineers

- a) Ensure that environmental coordination plan is established, implemented and maintained during engineering, construction and commissioning.
- b) Analyze the environmental questions which crop up during engineering, construction and warranty of the project.
- c) Monitor the implement of EQM on.
- d) Assist HSE department manager to propagate and carry out environmental laws, Legislation and Regulations of approvals issued by Sudan or local government and HSE policy of SYNCHRO.

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- e) Assist HSE department manager to organize employees to educate and train.
- f) Report without delay the performance of environment management to HSE department manager for later auditing and as a basis for improvement of the EQM.

5.2.4 Employees

- a) Each employee shall clearly understand the importance of protection to environment.
- b) Comply with all applicable laws, regulations, environmental standards, guidelines and terms and conditions of approvals issued by environmental authority of the Republic of Sudan, and meet or exceed the environmental requirements of Owner.
- c) Carry out SYNCHRO's HSE management regulations and standards.
- d) Understand the aspect of important environmental impact and the environmental accident that can possibly happen.
- e) Operating according to the rules and regulations, and reporting on time the accident to higher level and putting forward to improving suggestion.

6.0 EDUCATION AND TRAINING

In order to raise environmental awareness and the protecting environment skill of SYNCHRO's employees, SYNCHRO will train and educate the employees. The training and educational contents are as follows:

- a) To be familiar with laws, regulations, environmental standard, guidelines and terms and conditions of approvals issued by environmental authority of the Republic of Sudan, and also the environmental requirements of the Owner. To have a clear view to the environmental objectives and targets, recognizing the importance of conformance with the environmental policy and procedures and with the requirements of the EQM and the potential consequences of departure from specified operating procedures.
- b) To improve the environmental protecting skill of the management and employees, including the methods of protecting the wild animal, methods of protecting cultural

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relics, the methods of reducing, collecting and dealing with waste material, the methods of managing and storing dangerous goods, fuel oil and machine oil, the methods of protecting water resources and the possibility of occurrence of environmental pollution during the construction.

7.0 ENVIRONMENT COORDINATION PLAN

7.1 Measures in Construction

For tightening up the environmental management and supervision during construction period, some environment experts should be hired and cooperate with the local environmental department and the Owner, and checkup randomly the working group on site. The employee should follow the rules as below:

- a) An environmental protection plan for construction stage will be developed and submitted to the Owner for approval.
- b) Experts for environmental protection will be invited to train employees and responsible for the environmental audit during the construction. By training, the employees should do as follows:
 - Obeying local law, rules and regulations about environment protection made by the local government during construction.
 - No damaging, felling trees and vegetation at random and firing bush outside the Pump Stations site and pipeline construction corridor.
 - During the construction of each Pump Stations, first of all, soil dug from evaporation pond would be used to elevate the pad of Pump Stations site to reduce the destruction of vegetation. If the soil is not enough, then we will dig soil from other area.
 - No damaging wild animal caves, killing or hunting wildlife at random.
 - No permitting to throw away solid waste, oily waste and the toxic waste and centralizing to process them in construction camp or appointed place during construction of each Pump Stations, pipeline and power supply transmission line.
 - Marking, protecting and reporting it to local government if finding historic site, historic relic and fossil etc.

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- Respecting local custom, life style and religious belief.
 - Setting marking post along the pipeline route to prevent other actions from damaging the pipeline and causing oil leakage.
 - Adopting the advanced welding technology and joint corrosion coating between interfaces to prevent pipeline interfaces from leakage for corrosion.
 - Selecting high intensity tubular goods and durable pipeline corrosion protection goods and adopt cathodic protection in avoiding pipeline erosion and leakage.
- c) The auxiliary facility for environmental protection and the main facility will start to construct simultaneously to ensure that the two of them could be put into operation at the same time.
- d) Necessary protection for construction site should be taken properly. The site will be restored after the completion of construction.

7.2 Measures in Warranty Period

In order to assure the normal and safe operation of project and avoid the accident of environment pollution after the project has been put into operation. SYNCHRO will take following main measures during warranty period.

- a) The main facility and the auxiliary facility for environmental protection will be put into operation simultaneously.
- b) Specifying the special or part-time personnel to take responsible for the environment protection after the project has been put into operation. They will cooperate with the environment department of local authority and environment protection department of company to check the environment protection routinely.
- c) Training employee and making them qualify regarding environment protection and safety before they carry out their duty.
- d) Implementing strict management to evaporation pond, especially in rain season. It is necessary to prevent waste oil from accident to pollute environment. For this purpose, the waste oil should be taking out in time when it is accumulated to a certain level. And the height of bank around the evaporation pond should be increased.

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- e) Once the pollution accident occurs, the reason of accident, the volume of oil leakage, the degree and scope of pollution should be recorded, filed, submitted to authority. Authority should be assisted to handle the accident.

7.3 Emergency Response Plan

Once accident happens, the environment will be polluted. In order to respond without delay to accidents and emergency situations, and prevent and mitigate the environmental impacts that may be associated with them, we establish and maintain the following procedures.

7.3.1 Scope

This procedure is designed to enable the management of SYNCHRO to control the coordination of an emergency occurring at one or more of the construction site location. It will come to operation once the senior SYNCHRO person or the person who raises the alarm, decides they need additional support and resources from the Owner.

For the purpose of this procedure, emergencies are defined as following:

- Fire
- Explosion
- Oil Accident
- Chemical Accident
- Accident
- Traffic Accident
- Oil or Gas Leak.

7.3.2 Objectives

In order to response to any emergency as quickly as possible, the members of emergency response team shall be aware of their duties to bring any emergency under control as soon as possible and return the site to normal operation. This document is prepared:

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- To provide an immediate action guide and organizational information for SYNCHRO's personnel who will be responsible for managing the response to an accident.
- To provide response strategy guidelines in the event of accident happens.
- To give reporting procedures that must be carried out in the event of an accident.
- To analyze environmental sensitivities of the engineering area, this must be considered when responding to an accident.

7.3.3 Application Areas

The work site areas of the project, including the office location, camp facilities.

7.3.4 The Reason of Accident

Several factors must be considered while planning an emergency response for an oil accident, which include: possible sources and scale of the accident, moving directions of the oil slick, environmental sensitive areas on the route of the accident, possible socio-economic impacts of the accident, and available resources (communication equipment, man power and material) to control and clean up the accident.

The most likely sources of accident in this engineering include: pipeline/flowing rupture or leakage, leaking or rupture of oil/fuel storage facilities and waste oil spilling from evaporation pond etc.

7.3.5 Responsibilities

- On-Site Commander

Directing the initial response effort; implement tactical response activities safely and efficiently utilizing all available on-site resources, as needed; advise the Incident Commander of any change in status of the accident.

- In charge of any emergency response.
- In charge of Emergency Response Team (ERT) members.

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- Authority to mobilize any other service or personnel as detailed in the “Project Response Plan Flow Chart” receive information and make sure it is recorded. Establish communication links with SYNCHRO office and Clients Office.
- Get to the accident site immediately upon informed of the incident.
- Assess magnitude of current situation.
- Implement immediate response with available resources.
- Obtain directions from and report to the incident Commander.
- Implement tactical plan established by the incident Commander and the Crisis Manager.
- Establish and provide directions to the field team and supervise the field team.
- Coordinate response resources, e.g., contractors, cooperatives and other third parties.
- Ensure that the field personnel have all necessary equipment and materials.
- Ensure that the containment and clean-up work assignments for the accident are properly implemented.
- Monitor the safety and effectiveness of the response, and make adjustments when necessary.
- Notify all concerned when emergency is over and collect reports of accident for safety and security manager for investigation and analysis.
- Identify deputy in their absence and make it known to the Administration Department.

b) Incident Commander

- The Incident Commander is the overall emergency response manager for SYNCHRO. In the case of an emergency, the Incident Commander is the primary contact person. The Incident Commander assesses the emergency with the On-Site Commander, and initiate call-out the ERT if necessary. The Incident Commander establishes clear strategic

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objectives, develops and implements strategic decisions through coordinating with the Crisis Management Committee and the ERT. The Incident Commander approves plans and requests for resources, and serves as the primary interface with the Crisis Management Committee. The Incident Commander reports to the chair of Crisis Management Committee.

- Upon receiving the initial call about the accident, provide advice, agree to immediate actions if necessary and activate the ERT if needed.
- Notify the executive in charge of the Crisis Management Committee.
- Obtain briefing from On-Site Commander at the scene where accident is occurring.
- Assess emergency situation and conduct initial incident briefing with the ERT members.
- Evaluate potential magnitude of the accident.
- Notify authorities and the public.
- Set clear strategic objectives through coordination with the ERT and implement appropriate action plan.
- Assess and authorize requests for additional resources and requests for release of the resources; assure the safety of all personnel.
- Manage overall incident and brief the Crisis Management Committee.
- Monitor and coordinate response activities.
- Monitor the maintenance of complete and accurate records and documentation of the incident and actions taken.
- Review and approve operational response plans.
- Confirm accuracy of information to be released to the new media.
- Approved plan for demobilization.

7.4 Materials Storage and Handling

Typical vehicle and equipment fuels, lubricants, coolants, propane or hydraulic fluids stored or used during construction may be regulated or require secondary containment. Method of storage may be in tanks or tankers, small containers, retail

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packaging, bulk storage or in pressurized tanks at the Contractor's work yard or staging area or on or in service or welding trucks.

Fuel and hazardous liquid storage shall require proper secondary containment structures, described as follows.

7.5 Equipment and Training

Each construction crew shall have adequate absorbent materials and containment booms on hand, to enable the rapid cleanup of any spill which may occur.

SYNCHRO shall maintain spill kits containing a sufficient quantity of absorbent and barrier materials to adequately contain and recover foreseeable spills. These kits may include, but are not limited to, absorbent pads, straw bales, absorbent clay, sawdust, floor drying agents, spill containment barriers, plastic sheeting, skimmer pumps, and drums or barrels. The equipment shall be located near fuel storage areas and other locations as necessary to be readily available in the event of a spill.

All fuel, and where possible, service trucks, shall carry adequate spill response materials. Spill response materials present on trucks shall consist of absorbent pads, absorbent material, plastic bags and a shovel.

SYNCHRO Construction Foreman shall inform the Environmental Inspector and all DC personnel as to the location of the spill control equipment and materials, and have them readily accessible while construction activities are occurring.

Experienced, well-trained people are essential for the successful implementation of spill prevention and control.

7.6 Spill Response and Notification Procedure

The first priorities after discovering a spill are to protect the safety of personnel and the public, minimize damage to the environment and control costs associated with clean-up and reclamation. The key actions to take immediately following a spill are:

Assess the safety of the situation (including surrounding public).

Remove sources of ignition if safe to do so.

Shut off the source of the spill if safe to do so.

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The person discovering a spill shall promptly notify SYNCHRO Construction Foreman and the Environmental Inspector. SYNCHRO Construction Foreman shall implement spill control measures as follows:

On a land spill, beams shall be constructed with available equipment to physically contain the spill. Sorbent materials shall be applied to the spill area and traffic on contaminated soils shall be minimized. Contaminated soils and vegetation shall be removed and disposed of at an approved facility.

Depending on the material spilled, the quantity and the location of the spill, notification to the appropriate agency may be required. If spill notification calls are necessary they shall be done jointly by SYNCHRO Construction Foreman and an Environmental Inspector and documented.

If necessary, for large spills in water areas, an Emergency Response Contractor shall be secured to further contain and clean up the spill.

7.7 Wetland or Water Area Response

In addition to the above measures, the following conditions shall apply if a spill, regardless of size, occurs near or into a stream, wetland or other water area.

For spills in standing water, floating booms, skimmer pumps shall be on-hand and used as appropriate by SYNCHRO to recover and contain released materials on the surface of the water.

For a spill threatening a water area, beams and/or trenches shall be constructed to contain the spill prior to entry into a water area. Deployment of booms, skimmers, and sorbent shall be necessary if the spill reaches the water. The spilled (product shall be picked up and the contaminated area clean-up in compliance with recommendations from site remediation specialists and applicable laws and regulations.

Contaminated soils in wetlands shall be excavated and placed in a plastic-lined beamed area and covered by plastic sheeting in approved containment areas a minimum of 35 meters away from the wetland or water area. The plastic covering the contaminated soil shall extend over the beam to prevent precipitation from contacting the contaminated soil. Contaminated soil shall be disposed of as soon as possible in accordance with applicable laws or regulations.

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7.8 Protection to Camp Environment

- Camping on the natural space as far as possible to minimize destroying trees and vegetation.
- No throwing away waste material to keep the camp clear.
- Not to take the way of leakage up down to treat wastewater to avoid destroying shallow water resource.
- No permission to dump rubbish in disorder in camp area, and should burn and bury them or send them to assigned place.
- No permission to fire these kinds of materials, which can smoke badly or cause bad smell.
- Supplying the water-closet (W.C) and making the employees keep them clear.
- Keeping the dining room clear.

7.9 Environmental Monitoring Plan

7.9.1 Purpose of Environmental Monitoring Plan

Establishment and execution of the Environmental Monitoring Plan will ensure implementation and fulfillment for the environment protection measure. Through establishing and executing this Planning, any deficiency of the environment protection measures can promptly be found out and it is possible to determine whether the environmental quality meets the specified standard or not. And thus the environment protection measures can be further modified and improved so as to maintain the environmental resources to the extent of the expected values.

7.9.2 Scope of Environmental Monitoring

The scope of the environmental monitoring includes the Project as well as the area of which the surrounding environment may be affected by the construction project.

7.9.3 Content of Environmental Monitoring

The Environmental Monitoring Planning includes essential contents to environmental monitoring both in the construction phase and operation phase of the project and the monitoring objects include atmosphere phase

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and operation phase of the project and the monitoring objects include atmosphere, water, soil, noise, etc.

7.9.4 Executive Organization for Environmental Monitoring

Environmental monitoring shall be executed and performed by a local environmental monitoring division authorized by the project undertaker (Owner). The project undertaker shall entrust the local monitoring division with the monitoring in due time in accordance with the Environmental Monitoring Planning and furnish requisites necessary for such monitoring.

7.9.5 Review and Verification System

The Environmental Monitoring Planning shall be reviewed and verified regularly i.e. once a year in general. Data and information obtained in the monitoring and beneficial result of the funds application shall be evaluated and audited with deleting some unnecessary items of the monitoring work, modifying any improper item or complementing certain important monitoring items which are not involved in the existing planning so as to ensure implementation of the environment protection measures and to enable the Environmental Monitoring Planning to play an effective role in protection of environmental resources.

8.0 DOCUMENT

SYNCHRO will control and manage the environmental documents from the follows:

- All the documents must be checked by SYNCHRO and the Owner.
- Distributing the approved document to each working group in time and requiring them to carry out according to it.
- All documents shall be controlled by specified person and located to be found easily, all should reviewed, revised as necessary according to the requirement of owner and the government concerned, and approved for adequacy by authorized personnel.
- The current versions of relevant documents are available at all locations where operations essential to the effective functioning of the EQM program are performed.
- Documentation shall be legible, dated and readily identifiable, maintained in an orderly manner and retained for a specified period.

8.1 Record

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SYNCHRO will keep the detailed minutes to all approved matters related to environment and hand over upon completion of the project;

8.2 Environmental Audit

In order to maintain continual improvement, suitability and effectiveness of the EQM program, and thereby its performance, SYNCHRO will develop the Audit Procedure for the environmental audit of SYNCHRO's activities in line with the Guidelines for Environmental Auditing.

End of Policy

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