

Environmental Impact Management



Palm Oil Mill

Section A : Legal position

Operation of palm oil mill comes under Environmental Quality (Licensing) Regulation 1977

- ✚ A valid license need to be displayed in the office
- ✚ The license will normally come with a set of Conditions of Approval (Jadual Pematuhan) by Dept. of Environment. The allowable limit of effluent discharge quality, environmental control measures/ type of environmental monitoring required are stated in the conditions of approval.

Section B : Pollution Control Practices

No	Type of pollution	Source of pollution	Common pollution control measures	Other useful information	Resources
1	Water Pollution	Effluent discharge 2 types: a) Discharge to water course b) Land application	✚ Effluent treatment system	✚ To refer to the <u>Conditions of Approval</u> for the allowable limit of final discharge and monitoring required.	✚ Guidance on Implementation of Desludging Effluent Treatment Ponds in Palm Oil Mill – BM Environmental Impact Assessment (EIA) – Department of Environment (doe.gov.my) ✚ Online Environmental Reporting for effluent discharge monitoring (https://oer.doe.gov.my/)
2	Air Pollution	Air pollution normally caused by incomplete combustion: a) Boiler – black smoke b) Incinerator – white smoke # Palm oil mills are discouraged from using empty fruit bunch incinerators in favour of empty fruit bunch mulching within the oil palm inter-rows	✚ Multicyclone dust collector ✚ Smoke density meter ✚ Continuous Emission Monitoring System (CEMS)	-	✚ Environmental Quality Act (Clean Air) Regulations 2014 (https://www.doe.gov.my/en/environmental-quality-clean-air-regulations-2014/)

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3	Odour Pollution	a) Poorly managed effluent treatment system, especially if the mill is located in close proximity to neighboring residential area b) Improper waste management	~To refer to item 1 on proper implementation and monitoring of effluent treatment system~	Organic matter that can be broken down by bacteria to more stable forms which will not create a nuisance or give off foul odours.	~To refer to item 1 on proper implementation and monitoring of effluent treatment system~
4	Noise Pollution	a) Sterilization process b) Generator set	Silencer	-	-
5	Scheduled waste (SW)	Any disposal of toxic and hazardous waste listed in Waste oil from the machineries maintenance or workshop	Proper packaging, labelling storage and inventory of scheduled waste	Electronic Scheduled Waste Information System (eSWIS) should be used to keep track of the generation and disposal	Type and source of scheduled waste (PDF Document) Guidelines for Packaging, Labelling and Storage of Scheduled Waste (https://www.doe.gov.my/en/scheduled-waste-guidelines/#flipbook-df_7076/1/) eSWIS (https://eswis.doe.gov.my/#)
6	Others: - In-plant control & housekeeping measures	-	Water usage control Oil clarification temperature control Oil spillages/ leaks control Proper design and operation of oil traps Separation of effluent and storm water drainage system Proper interim storage of solid waste materials		

Section C : Other Good Reference Materials

1. Industrial Process and the Environment (Handbook No. 3): Crude Palm Oil Industry
https://www.academia.edu/4857847/Industrial_Process_and_the_Environment-Crude_Palm_Oil_Industry

Section D : Cleaner Production (CP)

1. What is Cleaner Production?
<https://btm.doe.gov.my/cpvc/definition/>
2. How does Cleaner Production apply in palm oil mill?
<https://btm.doe.gov.my/cpvc/methodology/>

DISCLAIMER: The information in this document are prepared for a brief understanding on Environmental Impact Management in Palm Oil Mill in Malaysia and have been compiled using various sources publicly available. Every effort has been made to ensure that all relevant data have been included; however Earthworm Foundation does not claim that the information in this guideline is exhaustive. Further, this document does not purport to contain all the information that the end user or reader including but not limited to employers, buyers, importers, manufacturers, suppliers or distributors (collectively "End User") may desire in understanding regarding the processes, practices or laws in Malaysia in respect of Environmental Impact Management in Palm Oil Mill in Malaysia. The intent of this document is to provide basic guideline which may be of some help to the End User. With the help of this document, the End User should re- ensure that the relevant laws, rules, regulations and guidelines are applicable, suitable, updated and relevant to their company or business as a whole.