

Environmental Checklist Pertaining to Chinese Breweries

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1. GENERAL INFORMATION

1.1 Name of the brewery: _____

1.2 Address: _____

Telephone: _____

Fax : _____

E-mail: _____

Web page (if applicable): _____

1.3 Information concerning the general manager of the brewery:

Name of the general manager: _____

Telephone: _____

Fax: _____

E-mail: _____

1.4 Information concerning the person completing the checklist:

Name and title: _____

Telephone: _____

Fax: _____

E-mail: _____

1.5 Is the brewery a state enterprise or a private enterprise? _____

1.6 In what year did the brewery start its operation? _____

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1.7 List types of beer manufactured at the plant? _____

1.8 Is the brewery operating seven (7) days a week, 24 hours per day? _____

If not, indicate the operating schedule: _____

1.9 Indicate the shut down periods (if any)? _____

1.10 How many employees are presently working at the brewery? _____

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2. CONCERNING THE FACILITY

2.1 What is the main source of energy?

2.2 What is the main source of fresh water?

2.3 What quantity of fresh water is used per day, per year?

Per day: _____

Per year: _____

2.4 Does the fresh water have to be treated before entering the beer making process?

If yes, what type of treatment is applied?

2.5 Is there a general flow sheet showing each section of the brewery in detail?

2.6 What types of fuels are used?

Type of fuel	Quantity (tons /year)
Coal	
Oil	
Gas	
Biomass	

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2.7 Is steam required in the process? _____

If yes, is it produced on site? _____

If not where is it produced? _____

2.8 Give the following information concerning raw materials?

Type of raw material	Quantity used per year (tons/year)	Quantity used per day (kg/day)	Moisture content (%)

2.9 What is the type and quantity of solids are produced?

Description	Quantity (ton/day)
Yeast	
Waste grain	

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3. WASTEWATER TREATMENT PLANT

3.1 Is the brewery equipped with an operational wastewater treatment plant? _____

If yes, fill in the following table:

Type of treatment	Description	Capacity (m ³ /h)
Primary		
Secondary (biological)		

- When was the wastewater treatment plant constructed? _____

- Was the wastewater treatment plant upgraded since it was constructed? _____

If yes, what type of modifications were brought? _____

3.2 What is the average quantity of wastewater generated per month or per year?

Per month: _____

Per year: _____

3.3 Is the treated effluent sampled manually or automatically?

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3.4 Are there any chemical analysis performed on the raw effluent arriving to the wastewater plant? _____

If yes, fill in the following table:

Parameters	Is the test performed?	Daily	Weekly	Monthly	Other
pH					
Temperature					
TSS					
BOD					
COD					
Nitrogen					
Phosphate					
Color					

3.5 What percentage of the effluent at the brewery is treated by the wastewater treatment plant? _____

If less than 100%, specify which effluents are not treated:

3.6 Are the effluents coming from the brewery collected into separate sewers before arriving at the wastewater treatment plant?

3.7 What are the chemicals, if any, used to treat the wastewater?

3.8 Where are the removed solids disposed ?

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3.9 What is the total flow rate of the treated effluent?

3.10 What type of equipment is used to measure effluent flow rate?

3.11 Indicate which of the following parameters are subjected to the regulation (please add any other regulated parameters that do not appear in this list)?

Parameters	Are these parameters regulated?
pH	
Temperature	
TSS	
BOD	
COD	
Nitrogen	
Phosphate	
Color	

3.12 Are there other local regulations that must be followed regarding effluent quality?

If yes, what are they? _____