

**DATA PREPARATION OF
EFFLUENTS****JGS 210-120-1-17E**

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CONTENTS

	<u>PAGE</u>
1. SCOPE	2
2. WORK PROCEDURE	2
2.1 General	2
2.2 Format	2
2.3 Gaseous Effluents	2
2.4 Liquid Effluents	2

1. SCOPE

This standard practice covers the minimum requirements for the preparation of the data sheet in relation to gaseous and liquid effluents from chemical plants, petroleum refineries and other plants, excluding clean rain water, oily rain water, fire water, and solid waste etc. which shall be separately specified.

2. WORK PROCEDURE

The data preparation on effluents should be executed as follows.

2.1 General

- (1) Since air and water pollution controls are strictly required under the legislation of the country concerned or local regulations, the discharging quantity and quality of such pollutants shall be confirmed in advance of the system design.
- (2) Should such quantity and quality exceed the specified values, appropriate treating facilities shall be planned and the approval thereof by the governmental authorities concerned shall be obtained duly in advance. For that purpose, this effluents summary sheet is considered important.
- (3) The discharging quantity and quality of all the pollutants during normal operation, which will pollute the environment shall be calculated in the preparation of the summary.

2.2 Format

The individual pollutants shall be described in the latest JGC standard form (Form No. 2218). The units to be applied shall be the same as those used in the specified values. Generally, the following units are applied:

- (1) Pollutants in gaseous effluents : mg/Nm³ or vol ppm
- (2) Pollutants in liquid effluents : mg/ℓ

2.3 Gaseous Effluents

Regarding the gaseous effluents to be discharged to the atmosphere such as flue gas from fired heaters, boilers, vent gas and etc., the discharging quantity and quality of the pollutants described below shall be specified per source.

- (1) SO_x
- (2) NO_x
- (3) Solid Particles
- (4) H₂S, NH₃, HCl, HF, etc.
- (5) Cl₂, F₂
- (6) CO
- (7) Hydrocarbons
- (8) Metal and its compounds, Hg, Cu, As, Pb, Cd, etc.

2.4 Liquid Effluents

Regarding the liquid effluents to be discharged from processes, such as desalter water, stripped sour water, neutralized spent caustic, neutralized demineralized water, boiler blowdown water, cooling tower basin overflow water, tank draw-off water, cooling tower blowdown water, ballast water, chemical waste from laboratories, and etc., the discharging quantity and quality of the pollutants described below shall be specified per source.

- (1) PH
- (2) Oil
- (3) COD*, BOD₅
- (4) Total Suspended Solids
- (5) Metal and its compounds, Cd, Cr, Cu, Pb, Hg, Ni, Zn, Ag, As, Fe, etc.
- (6) Cyanide as CN⁻, Sulfide as S²⁻, Ammonia as NH₄⁺
- (7) Phenol, Benzene, H₂S