

Oil Storage Installations
Building (Oil Storage Installations) Regulations

Construction of an oil storage installation should not commence without having first obtained approval and consent under Buildings Ordinance section 14(1).

2. An oil storage installations is defined in the Regulations as any tank having a capacity of not less than 110,000 litres, or a group of tanks (within the same cluster/bunded area) any one of which has a capacity of not less than 110,000 litres, constructed above ground level for the purpose of storing oil or petroleum products.

3. An above ground oil storage installation is deemed to satisfy the requirements of the Building (Oil Storage Installations) Regulations if it meets the standards set out in the Code of Practice for Oil Storage Installations.

4. This Code has been amended and the new version, the Code of Practice for Oil Storage Installations 1992, will come into effect on 1 September 1992.

5. The amended Code has been completely re-written and incorporates the following changes :

- (a) tank safety distances are included for the first time;
- (b) floating roof tanks are now required for storage of Class 1 petroleum;
- (c) fire wall compartmentation and physical dimensions are clarified;
- (d) membrane requirements for bund floors are expanded and permeability testing deleted;
- (e) leak detection systems for tanks are now required;
- (f) drainage and interceptor standards are enhanced;
- (g) petroleum sludge disposal more closely are controlled;
- (h) operation procedure requirements are expanded;
- (i) contingency Plan to deal with a fire or pollution incident are now required; and
- (j) marine pollution equipment requirements are expanded.

6. Furthermore, an oil storage installation should not commence operations before being granted a licence to do so, under the Building (Oil Storage Installations) Regulations.

cont'd/.....

7. All oil storage installations are licensed under the Regulations, and any new installation or new tanks in an existing installation requires a licence. As a prerequisite to the granting of a licence for new tanks six copies of the prospective licensee's operation instructions of the installation and its associated works should be submitted for agreement.

8. It should be noted that an occupation permit and a certificate of general inspection are required prior to the granting of a licence for new tanks. For new tanks in an existing licensed installation, the original Form B should be returned with the licence application for endorsement. The licence is renewed annually and the application must be accompanied by the certificates of inspection as required under Building (Oil Storage
----Installations) Regulation 8(1)(b), a copy of which is attached at Appendix A for your information.

9. In addition, in accordance with Regulation 8(1)(a), all tanks must be inspected internally not later than the tenth year in the life of the tank, and thereafter an internal inspection shall be carried out once in every fifth year after the year in which the first inspections was carried out. Each certificate of general inspection must be immediately issued to the licensee,
----a copy of which is also attached at Appendix B.

10. For the repair of existing tanks two copies of the proposals, signed by a registered structural engineer, should be submitted in order to obtain written authorization, as required under Regulation 10. Where the repair works are considered to be extensive, formal approval under the Buildings Ordinance will also be required.

11. There have been cases where partially constructed tanks have been damaged during a typhoon. As such, suitable precautionary measures should be adopted during the construction or repair of tanks when extreme weather conditions are predicated.



(Darwin Chen)
Building Authority

Ref. : BLD(B) GP/BREG/A/6/1

First issued May 1978

This revision July 1992 (GSE)

Index under : Building (Oil Storage Installations) Regulations
Oil Storage Installations

INSPECTION OF TANKS
BUILDING (OIL STORAGE INSTALLATIONS) REGULATIONS
REGULATION 8(1)(a)
CERTIFICATE OF GENERAL INSPECTION

....., 19

In accordance with the provisions of Regulation 8(1)(a) of the Building (Oil Storage Installation) Regulations, I
Registered Structural Engineer, hereby CERTIFY that I have *inspected/supervised the general inspection of the tank forming part of the oil storage installation operated by (Company)
..... address
..... lot No.
and in my opinion this tank is

☐ structurally sound and fit for service for a further twelve months *and the undernoted corrective measures are required

☐ unfit for service until the undernoted measures are completed to my satisfaction

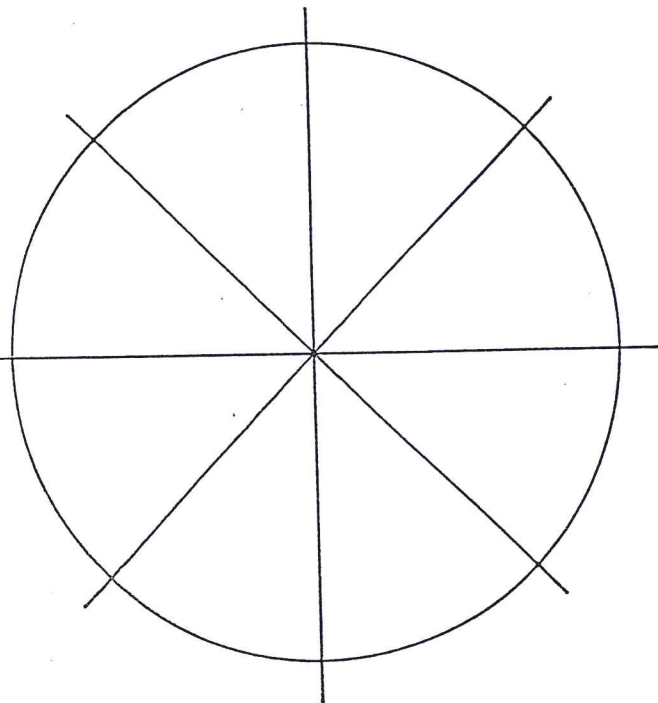
| TANK NO. | | CAPACITY | FIXED OR FLOATING ROOF | | YEAR BUILT | DATE OF INSPECTION |
|----------|--------------------------------|--------------------------|--------------------------|--|------------|--------------------|
| BA | CO. | | | | | |
| No. | INSPECTION ITEM | CONDITION | | REMARKS/RECOMMENDATION FOR CORRECTIVE MEASURES | | |
| | | SATISFACTORY | REPAIR | | | |
| 1 | ULTRASONIC TEST | | | | | |
| | a) 1ST/2ND COURSES SHELL | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| | b) BASE PLATE | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 2 | EXTERNAL/INSULATION PAINTWORK | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 3 | SETTLEMENT+ | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 4 | PERIPHERAL BASE SEAL | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 5 | EXPOSED BOTTOM PLATE AND JOINT | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 6 | EARTH CONNECTION | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 7 | TANK FOUNDATION AND SURFACING | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 8 | ROOF STRUCTURE | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 9 | STAIRS, WALKWAYS | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 10 | DRAINAGE FROM AND AROUND TANK | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 11 | MISC. | <input type="checkbox"/> | <input type="checkbox"/> | | | |

+ Settlement Record Overleaf

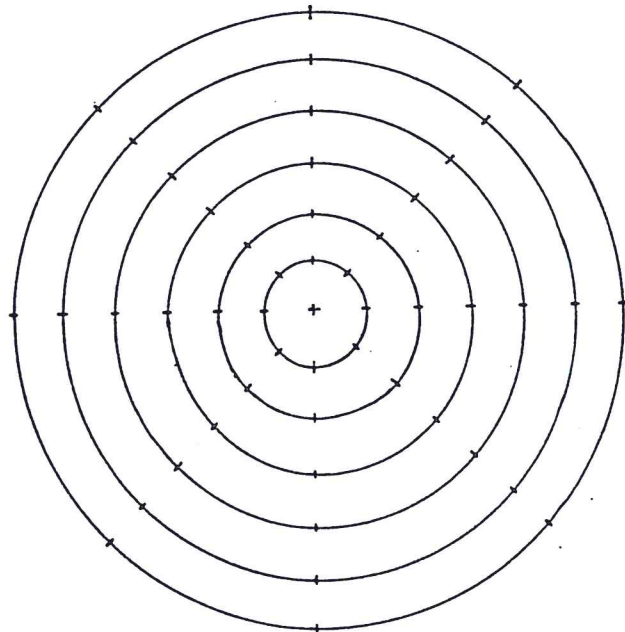
* Delete as appropriate

SETTLEMENT RECORD

| | | | | | |
|---|--|---------------------------|-----------|-----------------------------------|--|
| TANK NO. _____ : | | DIAMETER = _____ METRES : | | HEIGHT = _____ METRES | |
| SURVEY MEASUREMENTS TAKEN ON _____ (DATE) | | | | | |
| MAXIMUM DIAMETRIC DIFFERENTIAL SETTLEMENT | | = | | MM BETWEEN PERIMETER POINTS _____ | |
| MAXIMUM ANGULAR DISTORTION | | = | 1 : _____ | BETWEEN PERIMETER POINTS _____ | |
| MAXIMUM TILT | | = | | MM | |
| BASE PLATE CENTRE LEVEL | | = | | METRES P.D. | |
| MINIMUM MEASURED THICKNESS OF BASE PLATE | | = | | MM | |



PERIMETER LEVELS



BASE PLATE CONTOUR PLAN



.....
Signature of Registered Structural Engineer

.....
Address of Registered Structural Engineer

INSPECTION OF TANKS
BUILDING (OIL STORAGE INSTALLATIONS) REGULATIONS
REGULATION 8(1)(b)
CERTIFICATE OF EXTERNAL INSPECTION

....., 19

In accordance with the provisions of Regulation 8(1)(b) of the Building (Oil Storage Installation) Regulations, I
Registered Structural Engineer, hereby CERTIFY that I have *inspected/supervised the
external inspection of the tank forming part of the oil storage installation operated by
..... (Company)
..... address
..... lot No.
and in my opinion this tank is

☐ structurally sound and fit for service for a further twelve months *and the
undernoted corrective measures are required

☐ unfit for service until the undernoted measures are completed to my
satisfaction

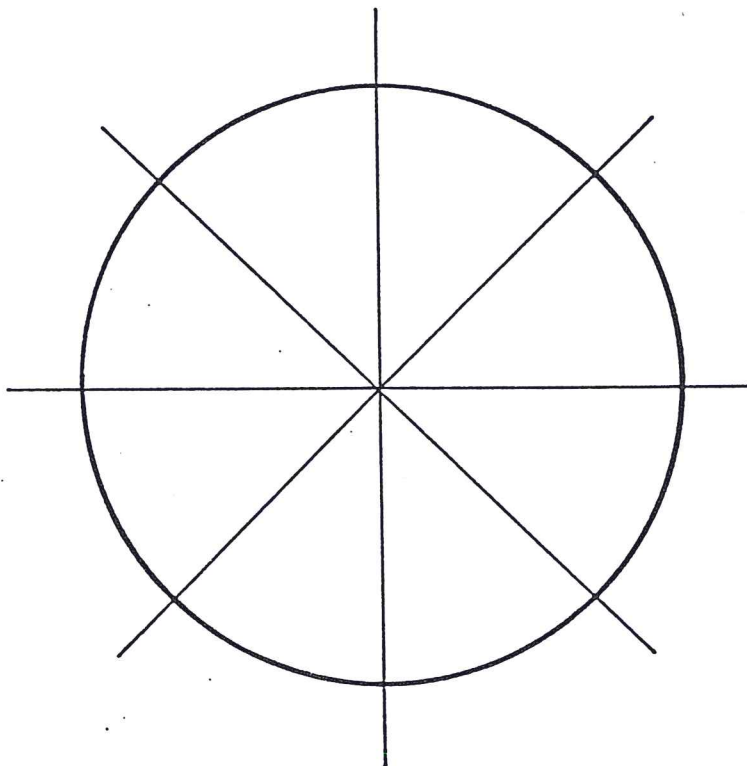
| TANK NO. | | CAPACITY | FIXED OR FLOATING ROOF | | YEAR BUILT | DATE OF INSPECTION |
|----------|------------------------------------|-------------------------------------|--------------------------|---|------------|--------------------|
| BA | CO. | | | | | |
| No. | INSPECTION ITEM | CONDITION SATISFACTORY REPAIR | | REMARKS/RECOMMENDATION FOR CORRECTIVE MEASURES | | |
| 1 | ULTRASONIC TEST 1ST/2ND COURSES | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 2 | EXTERNAL/INSULATION PAINTWORK | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 3 | SETTLEMENT+ | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 4 | PERIPHERAL BASE SEAL | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 5 | EXPOSED BOTTOM/ PLATE/JOINT | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 6 | EARTH CONNECTION | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 7 | TANK FOUNDATION AND SURFACING | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 8 | ROOF STRUCTURE | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 9 | STAIRS, WALKWAYS | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 10 | DRAINAGE FROM AND AROUND TANK | <input type="checkbox"/> | <input type="checkbox"/> | | | |
| 11 | MISC. | <input type="checkbox"/> | <input type="checkbox"/> | | | |

+ Settlement Record Overleaf

* Delete as appropriate

SETTLEMENT RECORD

| | | | | |
|---|------------------|--------------------------------------|----------------|--------|
| TANK NO. _____ : | DIAMETER = _____ | METRES : | HEIGHT = _____ | METRES |
| SETTLEMENT MEASUREMENTS TAKEN ON _____ (DATE) | | | | |
| LEVEL OF PRODUCT IN TANK | = | METRES | | |
| MAXIMUM DIAMETRIC DIFFERENTIAL SETTLEMENT | = | MM BETWEEN PERIMETER POINTS _____ | | |
| MAXIMUM ANGULAR DISTORTION | = 1 : | _____ BETWEEN PERIMETER POINTS _____ | | |
| MAXIMUM TILT | = | MM | | |



.....
Signature of Registered Structural Engineer

.....
Address of Registered Structural Engineer