



TITLE: Site Preparation & Laydown Area	STANDARD:	200
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Definitions (in relation to this Standard)

Nil

Cross-References

- Royal Commission Public Health Code
- Standard 201 – Engineering & Vehicle Workshops
- Standard 202 – Storage of Materials
- Standard 203 – Fire Prevention & Protection
- Standard 206 – Housekeeping
- Standard 227 – Welding Operations (storage of gas cylinders)
- Standard 303 – Control of Substances Hazardous to Health (CoSHH)
- Standard 401 – Waste Management
- Standard 200 – Appendix 1 Site Fencing (2 sections)
- Standard 200 – Appendix 2 Project Sign Board
- Standard 200 – Appendix 3 laydown Area

Standard

General

1. Royal Commission requires all Contractor laydown area and construction sites to be fenced with secure access points as per Appendix 1.
2. There must be a Project Sign board displayed as per Appendix 2 at both laydown area and construction site.
3. Both laydown area and construction site must also display a safety bulletin board / notice board displaying Safety Alerts, Site Rules, emergency contact numbers and relevant safety posters.
4. Labour camps are not permitted unless prior written approval from the Royal Commission is received. In the event a labour camp is approved it must comply with the RC Public Health Code requirements, and any other Royal Commission codes & standards or any other guidance as deemed applicable by the Royal Commission.
5. Laydown area plan must be approved by Royal Commission prior to commence of any laydown construction.

Laydown Area

6. There is no standard layout of a lay-down area, however an example showing the principles of a site layout can be found at Appendix 3.

Site Preparation

7. The Contractor must comply to the above cross-referenced Standards, and in summary, the following principles met:

Vehicles

8. There is to be a one-way circuit in operation on all laydown areas, with a signed speed limit of 20kph. The path has to be compacted, leveled and paved with gravel to control the dust or regular spraying with water is required. All raised or banked roadways to have hard concrete barriers 1.8m from the edges.
9. Contractor is to make every effort to segregate vehicles and pedestrians in the design of the laydown area and construction site. Separate pedestrian and vehicle gates must be provided. Pedestrian access should be compacted, leveled and paved with gravel.
10. There must be shaded car parking provided. Equipment or mobile plant should park separately.

Welfare

11. Welfare is to be considered as rest area, toilets / washrooms, prayer area [mosque], shaded area, smoking area, chilled water dispensing area. If an eating area is to be provided, all RC Public Health Code requirements are to be met and prior written approval is required from Royal Commission. The preparation of food on-site is strictly prohibited. The preparation of food off-site, but within areas controlled by Royal Commission must comply with the RC Public Health Code requirements, and then, only with Royal Commission written consent.
12. Ratios for toilets must comply with Standard 302 - Welfare. All toilets will require a water tank and sufficient water supply for flushing purposes.
13. The designated smoking area must be a minimum of 25m away from all areas and stores containing combustible materials, fuels, oils, and gases. Appropriate receptacles filled with sand for use as ashtrays shall be provided, along with signage in both English and Arabic.
14. A dedicated area must be provided for the cleaning and cooling of water coolers. The area is to be designed and constructed in a way that sufficient drainage is provided to prevent water pooling on ground surfaces.
15. Ice making machines to be provided or freezer units provided for the storage of ice that is brought to site.

Fuel Storage

16. All fuel storage areas are to be located 10m away from all watercourses or 50m from wells.
17. The surface of the area where fuel deliveries are to be made is to be protected by a surface impermeable to the fuels and oils, and isolated from any surface water drainage systems.
18. Tanks including generator fuel tanks are to be of sufficient strength and structural integrity to ensure that it is unlikely to burst or leak in ordinary use. All tanks must be bunded, and are to be able to contain 110% of the combined tank capacity.
19. A minimum clearance of 750mm between bund wall and tank, and 600mm between tank and base is required.
20. The use of un-reinforced materials is not recommended for bund wall construction.

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21. Bulk fuels (any storage over 205Litres / over 1drum) to be stored at least 25m away from all buildings.

Generators

22. All generators are to be earthed and the fuel tank bund requirements as above.
23. The use of *silent* (enclosed type) generators is mandatory, and shall be approved by the Royal Commission before siting and operation. See example 1 below:



Example 1 – silent (enclosed) type generator

24. Generator areas require hearing protection to be worn, and “wear hearing protection” signs must therefore be displayed along with a “no smoking” sign.
25. Generator areas must be secured to prevent unauthorized access.
26. Generator exhaust pipe fumes must be released into a suitable area.
27. Maintenance records to be kept.
28. Maximum permissible noise output at 2 meter 85 dB (A).
29. All generators to be housed at least 25m away from all buildings.

Gas Storage

30. All gas cylinders must be stored, in an upright position and be properly secured by means of substantial chain, cable or equivalent method in a ventilated building, or on a flat dry well-drained surface in open air that has sufficient protection [shade] from the sun.
31. All gas storage areas must be clearly identified with cylinder contents, all gases must be stored in accordance with the requirements of their MSDS (material safety data sheet).

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- 32. Oxygen and acetylene cylinders must be stored at least 6m apart, or separated with a barrier at least 5feet high with a 1 hour fire rating.
- 33. LPG cylinders must be segregated from all other cylinders by minimum of 20 feet (6.1m).
- 34. All LPG to be stored at least 25m away from all buildings.
- 35. No other products must be stored in the gas storage area, especially oils, greases, chemicals and paints.

Chemical Storage

- 36. All chemical storage areas must be clearly identified with correct signage. All chemicals must be stored in accordance with the requirements of their MSDS (material safety data sheet).
- 37. If a secure store is used for such purposes, there must be adequate ventilation to allow fumes to naturally disperse.
- 38. All flammable/combustible chemicals to be stored at least 25m away from all buildings.
- 39. There must be no smoking within 25m and signage must be displayed on all areas containing hazardous stores (fuels, oils, chemicals & gases) in both Arabic and English.
- 40. All chemical storage areas to be provided with a stand-by emergency eye wash station (capable of flushing eyes for 15 minutes).
- 41. Can be found on 402-Waste management.

Fire Prevention & Protection

- 42. There is to be 5m minimum spacing between all buildings and structures.
- 43. Smoke detectors must be installed in all offices. Inspected and tested quarterly, and test records kept.
- 44. All Fire extinguishers shall be shaded so the equipments are not exposed directly to sunlight.
- 45. A designated evacuation assembly point must be established within the lay-down area and signage in both English and Arabic clearly posted in the area.
- 46. Laydown offices and buildings elevated off ground must have a "skirt" fitted around the base of the building to prevent wind-blown material accumulating under the building and becoming a pest and fire hazard.

Security

- 47. Contractor shall comply with all Royal Commission Security and Safety Department rules and regulations.
- 48. A site plan showing locations of all hazardous areas [chemical and flammable], fire fighting equipment, and nearest fire-water mains connection point must be kept in the security gatehouse for use by emergency services in the event of an incident.
- 49. The security gatehouse must have adequate means to summon emergency assistance.
- 50. Emergency procedures and phone numbers must be displayed as a minimum at the security gatehouse and in the First Aid Facility.

Construction Site

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51. Contractor must be in possession of all permits required before work commences; this may involve, but not limited to:

- Royal Commission Encroachment Permits
- Royal Commission Security Pipeline Corridor Permit
- SEC Permit
- Marafiq Permit

Contractor must insure that at all times he is in compliance with the provisions of all Royal Commission Guidelines and/or Ministry of Transportation Standards.

52. Contractor shall ensure they have the latest as-built drawings for the construction site.

53. Contractor must ensure all existing utilities and services are located and compared to the as-built drawings before any excavations or piling operations commence.

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