

TEMPORARY SEWAGE PUMP-OUT INSTALLATIONS

INSTRUCTIONS FOR USE OF DEEMED TO COMPLY DRAWINGS FOR TEMPORARY PUMP-OUT (TPO) INSTALLATIONS:

- THE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE 'GUIDELINES FOR AN INTERIM OPERATING PLAN SEWER PUMP-OUTS'.
- TEMPORARY SEWAGE PUMP OUT INSTALLATIONS ARE INTENDED FOR SHORT TERM USE ONLY WITH A MAXIMUM SERVICE LIFE OF 5 YEARS.

- THE DESIGN IS BASED ON USE OF MODULAR PRECAST CONCRETE COMPONENTS ALLOWING ASSEMBLY TO SUIT A VARIETY OF APPLICATIONS. THE DRAWINGS PROVIDE DEEMED TO COMPLY (DTC) SOLUTIONS FOR VARIOUS COMPONENTS OF TPO INSTALLATIONS INCLUDING STORAGE TANKS, VENTILATION, PIPEWORK, SITE FACILITIES AND POWER, CONTROL AND TELEMETRY. .

COMPONENTS MAY BE CONSTRUCTED IN ACCORDANCE WITH THE SW REFERENCE DESIGN, OR AN APPROVED EQUIVALENT 'OFF THE SHELF' PRODUCT. SUPPLIERS OF PRECAST COMPONENTS ARE ENCOURAGED TO SUBMIT DETAILS OF THEIR PRODUCT FOR ASSESSMENT AND LISTING IN THE DRAWINGS WERE ACCEPTED.

- TEMPORARY SEWAGE PUMP OUTS MAY CONSIST OF SINGLE OR MULTIPLE TANK INSTALLATIONS, UP TO A MAXIMUM OF 3. THE TEMPORARY PUMP OUT INSTALLATION SHALL SERVE RESIDENTIAL CATCHMENTS ONLY, UP TO A MAXIMUM OF 600 EP.
- THE DRAWINGS ALONE DO NOT CONSTITUTE A COMPLETE DESIGN PACKAGE. THE SCOPE OF DTC DRAWINGS DOES NOT INCLUDE OTHER COMPONENTS INCLUDING, BUT NOT LIMITED TO EARTHWORKS, ACCESS, SECURITY, DRAINAGE, BUILDINGS.
- THE USER IS REQUIRED TO SUPPLEMENT THE DTC DRAWINGS WITH A SITE SPECIFIC DESIGN CONSISTING OF:

- SITE LAYOUT PLAN AND CROSS SECTIONS FULLY DESCRIBING THE LOCATION, LEVEL AND RELATIONSHIP BETWEEN EACH OF THE VARIOUS COMPONENTS.
- INTERIM OPERATING PLAN
- ADDITIONAL DETAILS AS NECESSARY TO ENSURE THE DESIGN IS FIT FOR PURPOSE.

THE USER SHOULD NOTE THAT USE OF STANDARD DESIGN COMPONENTS MAY INTRODUCE UNINTENDED SAFETY RISKS FOR THEIR APPLICATION. THE USER SHALL ADDRESS SAFETY RISKS THROUGH SITE SPECIFIC ASSESSMENT.

- DRGS DTC/6314 AND DTC/6315 ARE PROVIDED AS GENERIC LAYOUTS TO GUIDE SITE SPECIFIC APPLICATION. THEY ARE NOT FOR CONSTRUCTION AND SHALL NOT BE REFERRED TO ON THE SITE SPECIFIC DRAWINGS.

- COMPONENTS NOMINATED IN THE SITE SPECIFIC DESIGN SHALL BE BASED ON CONSIDERATION OF LIMITATIONS NOMINATED IN THE DTC DRAWINGS AND THE FOLLOWING INFORMATION:

- INVERT LEVEL OF SEWERS ENTERING THE FIRST STORAGE TANK
- EXISTING AND PROPOSED GROUND LEVELS AND SURFACE PROFILE AT THE TPO SITE
- OVERFLOW LEVEL
- GEOTECHNICAL INFORMATION TO THE FOUNDATION DEPTH OF EACH STRUCTURE

- FINISHED SURFACE LEVELS:

- EARTHWORKS SHALL BE PROVIDED TO RAISE THE FINISHED SURFACE LEVEL TO SUIT STRUCTURE HEIGHTS AND PROVIDE A 1000 MM LEVEL WORKING AREA AROUND EACH STRUCTURE. DETAILS OF EARTHWORKS SHALL BE SPECIFIED BY THE USER IN THE SITE SPECIFIC DESIGN.

- ARRANGEMENT OF STORAGE TANKS

- THE GENERAL ARRANGEMENT OF STORAGE TANKS IS SHOWN ON DTC/6316 AND COMPRISES A MINIMUM OF:
 - ROOF SLAB
 - TOP SHAFT RING
 - BASE SHAFT RING
 - BASE SLAB
- PRECAST SHAFT RINGS ARE AVAILABLE IN NOMINAL INTERNAL DIAMETERS OF 2.4, 3.0 AND 3.6m, AND HAVE A SET HEIGHT OF 1.8m. THIS MAY RESULT IN THE ACTUAL DEPTH OF THE STORAGE TANKS BEING GREATER THAN THE MINIMUM DEPTH REQUIRED.
- AN INTERMEDIATE 1.8m HIGH SHAFT RING SHALL BE PROVIDED BETWEEN THE BASE AND TOP SHAFT RINGS WHERE REQUIRED TO PROVIDE INCREASED STORAGE VOLUME. THE MAXIMUM NUMBER OF PRECAST SHAFT RINGS FOR EACH STORAGE TANK SHALL BE 3.

- PRECAST SHAFT RINGS PENETRATIONS

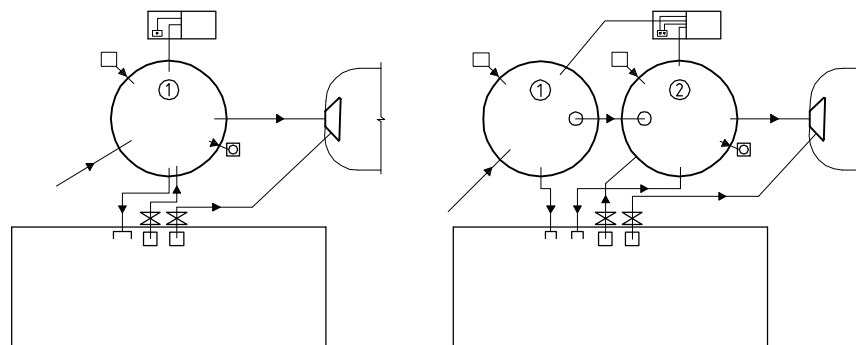
- PENETRATIONS OF PRECAST SHAFT RINGS FOR PIPE CONNECTIONS SHALL BE CORED ON SITE. DIMENSIONS AND TREATMENT OF CORED PENETRATIONS ARE SPECIFIED ON DTC/6312. LOCATIONS OF ALL PENETRATIONS SHALL BE SPECIFIED BY THE USER, SUBJECT TO LIMITATIONS SHOWN ON DTC/6316, DTC/6317 AND DTC/6318.

- FLOTATION OF STRUCTURES BELOW GROUND

- THE STORAGE TANKS HAVE BEEN DESIGNED TO RESIST BUOYANCY FORCES DUE TO EXTERNAL GROUNDWATER, BY ENGAGING THE SURROUNDING SOIL THROUGH THE OVERSIZED BASE SLAB (FOR STRUCTURES IN 'OTHER THAN ROCK' STRATA. THE DESIGN BUOYANCY FORCE IS BASED ON THE GROUNDWATER LEVEL LOCATED AT FSL.

- THE BASE SLAB DESIGN PROVIDED ON DRG NO. DTC/6306 IS BASED ON THE WET WELL BEING CONSTRUCTED USING AN OPEN EXCAVATION. IF SHORING IS USED TO SUPPORT THE EXCAVATION, NO PERMANENT SHORING SHALL BE USED TO ENSURE THE SURROUNDING SOIL CAN BE ENGAGED TO RESIST FLOTATION. WHERE THIS LIMITATION CANNOT BE MET, THE USER SHALL SPECIFY ALTERNATIVE METHODS TO RESIST FLOTATION.

- ALTERNATIVELY, THE USER MAY SPECIFY SOIL OR ROCK ANCHORS TO RESIST FLOTATION. THE USER SHALL PROVIDE ALL NECESSARY CONSTRUCTION DETAILS INCLUDING ANCHOR DETAILS, BASE SLAB MODIFICATION DETAILS AND ANY OTHER DETAILS AS REQUIRED TO ENSURE THE DESIGN IS FIT FOR PURPOSE. NOTE THE USER IS RESPONSIBLE FOR THE SITE SPECIFIC ANCHOR DESIGN. THE DESIGN SHALL BE SUBMITTED TO SYDNEY WATER FOR ACCEPTANCE PRIOR TO CONSTRUCTION.

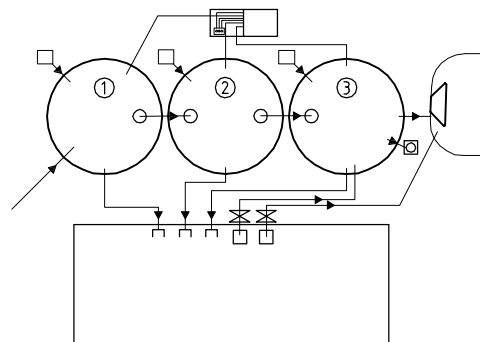


SINGLE TANK ARRANGEMENT

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TWIN TANK ARRANGEMENT

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TRIPLE TANK ARRANGEMENT

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SINGLE TANK DESIGN:

- PROVIDE A BUNDED HARDSTAND AREA SIZED TO SUIT THE LARGEST VEHICLE LIKELY TO SERVICE THE ASSET.
- PROVIDE THE BUNDED HARDSTAND AREA WITH TWO DRAINS. ONE TO THE TANK AND ONE TO THE OVERFLOW DISCHARGE POINT. EACH DRAIN MUST HAVE A VALVE AND SIGNAGE TO DESCRIBE THE OPERATION OF THE VALVES.
- PROVIDE SUCTION PIPEWORK FOR THE TANK ALLOWING IT TO BE EMPTIED BY TANKER FROM THE BUNDED AREA.
- PROVIDE AN OVERFLOW PIPE FROM THE TANK TO A HEADWALL LOCATED ON A DRAIN THAT LEADS TO A WATERCOURSE OR DRAIN.
- TO MAXIMISE AVAILABLE STORAGE PRIOR TO OVERFLOW TO THE ENVIRONMENT, DESIGN THE INVERT OF THE OVERFLOW PIPE AND THE INVERT OF THE PIPE TO THE ODOUR CONTROL UNIT ABOVE THE DESIGNED STORAGE LEVEL FOR THE ASSET.
- DESIGN THE TOP WATER LEVEL TO PREVENT SURCHARGE OF UPSTREAM PROPERTIES.
- PROVIDE AN ODOUR CONTROL UNIT WITH PIPEWORK CONNECTING TO THE TANK.
- PROVIDE POWER BY MEANS OF A SOLAR PANEL ARRANGEMENT, UNLESS THERE IS AN EXISTING POWER SUPPLY IN THE AREA. THE USER SHALL PROVIDE DETAILS FOR USE OF EXISTING POWER SUPPLY.
- PROVIDE 3 FLOAT SWITCHES IN THE TANK.
- PROVIDE A LIGHT MOUNTED ON THE ELECTRICAL KIOSK SLAB TO INDICATE WHEN IT IS IN USE.
- LOCATE ALL COMPONENTS, WITH THE EXCEPTION OF THE TANKER CONNECTION POINTS AND THE VALVES ON THE DRAINAGE PIPEWORK, WITHIN A FENCED COMPOUND.

MULTIPLE TANK DESIGN:

- DESIGN THE INVERT LEVEL OF THE INCOMING SEWER TO ENTER THE FIRST TANK AS CLOSE AS IS PRACTICABLE TO THE INVERT OF THE TANK.
- THE TANK RECEIVING THE INCOMING SEWER IS REFERRED TO AS TANK 1, SUBSEQUENT TANKS ARE TO BE NUMBERED AS PER THE ORDER IN WHICH THEY FILL.
- PROVIDE A BUNDED HARDSTAND AREA SIZED TO SUIT THE LARGEST VEHICLE LIKELY TO SERVICE THE ASSET.
- PROVIDE THE BUNDED HARDSTAND AREA WITH TWO DRAINS. ONE TO THE TANK AND ONE TO THE HEADWALL. EACH DRAIN MUST HAVE A VALVE AND SIGNAGE TO DESCRIBE THE OPERATION OF THE VALVES.
- PROVIDE SEPARATE SUCTION PIPEWORK FOR EACH TANK, ALLOWING IT TO BE EMPTIED BY TANKER FROM THE BUNDED AREA.
- PROVIDE AN OVERFLOW PIPE FROM THE LAST TANK IN THE SERIES TO A HEADWALL LOCATED ON A DRAIN THAT LEADS TO A WATERCOURSE.
- TO MAXIMISE AVAILABLE STORAGE PRIOR TO OVERFLOW TO THE ENVIRONMENT, DESIGN THE INVERT OF THE OVERFLOW PIPE ABOVE THE SOFFIT OF THE INTERCONNECTING PIPES AND BELOW THE DESIGNED TOP WATER LEVEL FOR THE ASSET.
- DESIGN THE TOP WATER LEVEL TO PREVENT INTERNAL AND EXTERNAL FLOODING OF PROPERTY.
- PROVIDE AN ODOUR CONTROL UNIT WITH PIPEWORK CONNECTING TO THE LAST TANK IN THE SERIES OF TANKS. THE ODOUR CONTROL UNIT IS TO BE LOCATED WITHIN THE COMPOUND BUT IS NOT TO BE LOCATED ON THE ROOF OF THE TANK.
- PROVIDE POWER BY MEANS OF A SOLAR PANEL ARRANGEMENT, UNLESS THERE IS AN EXISTING POWER SUPPLY IN THE AREA.
- PROVIDE 3 FLOAT SWITCHES IN EACH TANK.
- PROVIDE A LIGHT FITTED TO EACH TANK TO INDICATE WHEN IT IS IN USE.
- PROVIDE INTERCONNECTING PIPEWORK DRAINING FROM TANK 1 TO TANK 2 AND SO ON.
- LOCATE ALL COMPONENTS, WITH THE EXCEPTION OF THE TANKER CONNECTION POINTS AND THE VALVES ON THE DRAINAGE PIPEWORK, WITHIN A FENCED COMPOUND.

Sydney
WATER



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APPROVED

KEN WIGGINS
MANAGER E & ES

ENGINEERING & ENVIRONMENTAL SERVICES

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ORIGINAL ISSUE

LETTER

DETAILS OF ISSUE / AMENDMENT

KW

22/06/15

APP'D

DATE

DEEMED TO COMPLY DRAWINGS

TEMPORARY SEWAGE PUMP- OUT INSTALLATIONS
INSTRUCTIONS

DTC

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DATE

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22/06/15