

Annex B5

Construction Plant Inventory (Mitigated)

Regulation of Shenzhen River Stage IV

Annex B5: Construction Plant Inventory (Mitigated)

Daytime Period (Normal days 0700 - 1900 hrs)

| No. | Activities | Plant Item | TM / EPD ^[1] / BS 5228 ref. | No. of PME | On-time % | Type of Noise Control ^[3] | Noise reduction, dB(A) | Unit SWL, dB(A) | SWL, dB(A) | Total SWL, dB(A) ^[2] | Groups ^[4] |
|--|-------------------------------|--|--|------------|-----------|--------------------------------------|------------------------|-----------------|------------|---------------------------------|-----------------------|
| Construction of Shenzhen River Stage IV | | | | | | | | | | | |
| I) Site Preparation | | | | | | | | | | | |
| 1 | Site Clearance | Tracked Excavator/loader | BS C3 97 | 1 | 75% | Noise barrier | -5 | 105 | 99 | 101 | |
| | | Lorry, with crane/grab, 5.5 tonne < gross vehicle weight | EPD/PME/36 | 1 | 50% | Noise barrier | -5 | 105 | 97 | | |
| 2 | Haul Road | Bulldozer | BS C3 65 | 1 | 75% | Noise barrier | -5 | 111 | 105 | 106 | |
| | | Tracked Excavator/loader | BS C3 97 | 1 | 75% | Noise barrier | -5 | 105 | 99 | | |
| | | Lorry, with crane/grab, 5.5 tonne < gross vehicle weight | EPD/PME/36 | 1 | 50% | Noise barrier | -5 | 105 | 97 | | |
| IV) Works Area III | | | | | | | | | | | |
| 11 | River Excavation (Sediment) | Bulldozer | BS C3 65 | 1 | 75% | Noise barrier | -5 | 111 | 105 | 110 | |
| | | Tracked Excavator/loader | BS C3 97 | 2 | 75% | Noise barrier | -5 | 105 | 102 | | |
| | | Lorry, with crane/grab, 5.5 tonne < gross vehicle weight | EPD/PME/36 | 3 | 50% | Noise barrier | -5 | 105 | 102 | | |
| | | Drill rig, rotary type (diesel) | CNP 072 | 1 | 50% | Noise barrier | -5 | 110 | 102 | | |
| | | Mobile crane (62kW) | BS C7 114 | 1 | 50% | Noise barrier | -5 | 101 | 93 | | |
| | | Concrete lorry mixer | CNP 044 | 1 | 50% | Noise barrier | -5 | 109 | 101 | | |
| | | Concrete pump, stationary/lorry mounted | BS C6 36 | 1 | 50% | Noise barrier | -5 | 106 | 98 | | |
| | | Drill/grinder, hand-held (electric) | CNP 065 | 1 | 50% | Noise barrier | -5 | 98 | 90 | | |
| 12 | Haul Road | Bulldozer | BS C3 65 | 1 | 75% | Noise barrier | -5 | 111 | 105 | 106 | |
| | | Tracked Excavator/loader | BS C3 97 | 1 | 75% | Noise barrier | -5 | 105 | 99 | | |
| | | Lorry, with crane/grab, 5.5 tonne < gross vehicle weight | EPD/PME/36 | 1 | 50% | Noise barrier | -5 | 105 | 97 | | |
| 13 | Excavation and River Training | Tracked Excavator/loader | BS C3 97 | 1 | 75% | Noise barrier | -5 | 105 | 99 | 108 | |
| | | Lorry, with crane/grab, 5.5 tonne < gross vehicle weight | EPD/PME/36 | 1 | 50% | Noise barrier | -5 | 105 | 97 | | |
| | | Breaker, hand-held, mass > 20kg and < 35kg | CNP 025 | 2 | 50% | Noise barrier | -5 | 111 | 106 | | |
| | | Concrete mixer (petrol) | CNP 046 | 1 | 50% | Noise barrier | -5 | 96 | 88 | | |
| | | Concrete pump, stationary/lorry mounted | BS C6 36 | 1 | 50% | Noise barrier | -5 | 106 | 98 | | |
| 14 | Landscaping | Bulldozer | BS C3 65 | 1 | 75% | Noise barrier | -5 | 111 | 105 | 108 | |
| | | Tracked Excavator/loader | BS C3 97 | 1 | 75% | Noise barrier | -5 | 105 | 99 | | |
| | | Lorry, with crane/grab, 5.5 tonne < gross vehicle weight | EPD/PME/36 | 1 | 50% | Noise barrier | -5 | 105 | 97 | | |
| | | Dump Truck (450kW, 50t) | CNP 072 | 1 | 50% | Noise barrier | -5 | 110 | 102 | | |
| | | Mobile crane (62kW) | BS C7 114 | 1 | 50% | Noise barrier | -5 | 101 | 93 | | |
| V) Works Area IV | | | | | | | | | | | |
| 15 | River Excavation (Sediment) | Bulldozer | BS C3 65 | 1 | 75% | Noise barrier | -5 | 111 | 105 | 105 | A |
| | | Tracked Excavator/loader | BS C3 97 | 2 | 75% | Noise barrier | -5 | 105 | 102 | | B |
| | | Lorry, with crane/grab, 5.5 tonne < gross vehicle weight | EPD/PME/36 | 3 | 50% | Noise barrier | -5 | 105 | 102 | | C |
| | | Drill rig, rotary type (diesel) | CNP 072 | 1 | 50% | Noise barrier | -5 | 110 | 102 | | C |
| | | Mobile crane (62kW) | BS C7 114 | 1 | 50% | Noise barrier | -5 | 101 | 93 | | C |
| | | Concrete lorry mixer | CNP 044 | 1 | 50% | Noise barrier | -5 | 109 | 101 | | B |
| | | Concrete pump, stationary/lorry mounted | BS C6 36 | 1 | 50% | Noise barrier | -5 | 106 | 98 | | B |
| | | Drill/grinder, hand-held (electric) | CNP 065 | 1 | 50% | Noise barrier | -5 | 98 | 90 | | C |
| 16 | Haul Road | Bulldozer | BS C3 65 | 1 | 75% | Noise barrier | -5 | 111 | 105 | 106 | |
| | | Tracked Excavator/loader | BS C3 97 | 1 | 75% | Noise barrier | -5 | 105 | 99 | | |
| | | Lorry, with crane/grab, 5.5 tonne < gross vehicle weight | EPD/PME/36 | 1 | 50% | Noise barrier | -5 | 105 | 97 | | |
| 17 | Excavation and River Training | Tracked Excavator/loader | BS C3 97 | 1 | 75% | Noise barrier | -5 | 105 | 99 | 106 | A |
| | | Lorry, with crane/grab, 5.5 tonne < gross vehicle weight | EPD/PME/36 | 1 | 50% | Noise barrier | -5 | 105 | 97 | | A |
| | | Breaker, hand-held, mass > 20kg and < 35kg | CNP 025 | 2 | 50% | Noise barrier | -5 | 111 | 106 | | B |
| | | Concrete mixer (petrol) | CNP 046 | 1 | 50% | Noise barrier | -5 | 96 | 88 | | C |
| | | Concrete pump, stationary/lorry mounted | BS C6 36 | 1 | 50% | Noise barrier | -5 | 106 | 98 | | C |
| 18 | Landscaping | Bulldozer | BS C3 65 | 1 | 75% | Noise barrier | -5 | 111 | 105 | 105 | A |
| | | Tracked Excavator/loader | BS C3 97 | 1 | 75% | Noise barrier | -5 | 105 | 99 | | B |
| | | Lorry, with crane/grab, 5.5 tonne < gross vehicle weight | EPD/PME/36 | 1 | 50% | Noise barrier | -5 | 105 | 97 | | B |
| | | Drill rig, rotary type (diesel) | CNP 072 | 1 | 50% | Noise barrier | -5 | 110 | 102 | | B |
| | | Mobile crane (62kW) | BS C7 114 | 1 | 50% | Noise barrier | -5 | 101 | 93 | | B |
| VI) Others | | | | | | | | | | | |
| 19 | Reprovisioning Works | Tracked Excavator/loader | BS C3 97 | 1 | 75% | Noise barrier | -5 | 105 | 99 | 105 | |
| | | Mobile crane (62kW) | BS C7 114 | 1 | 50% | Noise barrier | -5 | 101 | 93 | | |
| | | Concrete lorry mixer | CNP 044 | 2 | 50% | Noise barrier | -5 | 109 | 104 | | |
| VII) Advanced Works | | | | | | | | | | | |
| 20 | Backfilling | Tracked Excavator/loader | BS C3 97 | 1 | 75% | Noise barrier | -5 | 105 | 99 | 101 | |
| | | Lorry, with crane/grab, 5.5 tonne < gross vehicle weight | EPD/PME/36 | 1 | 50% | Noise barrier | -5 | 105 | 97 | | |
| | | Generator, super silenced, 70dB(A) at 7m | CNP 103 | 1 | 50% | Noise barrier | -5 | 95 | 87 | | |
| | | Mobile crane (62kW) | CNP 281 | 1 | 50% | Noise barrier | -5 | 88 | 80 | | |
| 21 | Road Construction | Tracked Excavator/loader | BS C3 97 | 1 | 75% | Noise barrier | -5 | 105 | 99 | 104 | |
| | | Lorry, with crane/grab, 5.5 tonne < gross vehicle weight | EPD/PME/36 | 1 | 50% | Noise barrier | -5 | 105 | 97 | | |
| | | Road roller | CNP 185 | 1 | 50% | Noise barrier | -5 | 108 | 100 | | |
| 22 | Fence Installation | Lorry, with crane/grab, 5.5 tonne < gross vehicle weight | EPD/PME/36 | 1 | 50% | Noise barrier | -5 | 105 | 97 | 102 | |
| | | Generator, standard | CNP 101 | 1 | 50% | Noise barrier | -5 | 108 | 100 | | |
| | | Drill/grinder, hand-held (electric) | CNP 065 | 1 | 50% | Noise barrier | -5 | 98 | 90 | | |

Regulation of Shenzhen River Stage IV

Annex B5: Construction Plant Inventory (Mitigated)

Daytime Period (Normal days 0700 - 1900 hrs)

| No. | Activities | Plant Item | TM / EPD ^[1] / BS 5228 ref. | No. of PME | On- time % | Type of Noise Control ^[3] | Noise reduction, dB(A) | Unit SWL, SWL, dB(A) | dB(A) | Total SWL, Groups ^[4] dB(A) ^[2] |
|-----|-------------------------|---|---|---------------|---------------|--------------------------------------|------------------------------|-------------------------|-------|--|
| 23 | Drainage / Sinage Works | Tracked Excavator/loader | BS C3 97 | 1 | 75% | Noise barrier | -5 | 105 | 99 | 107 |
| | | Lorry, with crane/ grab, 5.5 tonne < gross vehicle weight | EPD/PME/36 | 1 | 50% | Noise barrier | -5 | 105 | 97 | |
| | | Breaker, hand-held, mass > 20kg and < 35kg | CNP 025 | 2 | 50% | Noise barrier | -5 | 111 | 106 | |
| | | Concrete mixer (petrol) | CNP 046 | 1 | 50% | Noise barrier | -5 | 96 | 88 | |
| | | Concrete pump, stationary/lorry mounted | CNP 047 | 1 | 50% | Noise barrier | -5 | 103 | 95 | |

Concurrent Project :

Construction of a Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road (AEIAR-136/2009)

Maximum SWLs for Activities 24 and 25 were extracted from the approved EIA Report (AEIAR-136/2009)

| | | | | | | | | | | |
|----|--|--|--|--|--|--|--|--|--|-----|
| 24 | Construction Activities (Section 3 - Ng Tung River to Ping Yuen River) | | | | | | | | | 104 |
| 25 | Construction Activities (Section 3 - Pak Fu Shan to Lin Ma Hang Road) | | | | | | | | | 104 |

Notes:

- [1] BS - British Standard BS 5228:1997, Part 1 Noise and Vibration Control on Construction and Open Sites
SWLs of EPD/PME items refer to the document prepared by the Noise Control Authority (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)
- [2] The figures are rounded-up to a whole number.
- [3] Noise barrier for mobile PME -5dB(A)
- [4] Either Group A, B or C will be undertaken at any one time.