

Contract No. HY/2013/02
Hong Kong-Zhuhai-Macao Bridge
Hong Kong Boundary Crossing Facilities –Infrastructure Works Stage I (Western Portion)
Investigation Report on Action Level or Limit Level Non-compliance

Report No. 002
Monitoring Date 28-Dec-15

The Action and Limit Levels of turbidity and suspended solids (SS) determined from baseline monitoring data are reproduced below:

Monitoring Parameter	Action Level (AL)	Limit Level (LL)
Depth averaged turbidity (in NTU)	27.5	47.0
Depth averaged SS (in mg/L)	23.5	34.4

Mid-Flood tide

Suspended Solids (SS) (in mg/L)

Monitoring Station	Monitoring time	Measured depth averaged	Level Exceeded
IS(Mf)11	09:38	24.9	Action

*Monitoring was undertaken by the E.T. of Contract No. HY/2010/02

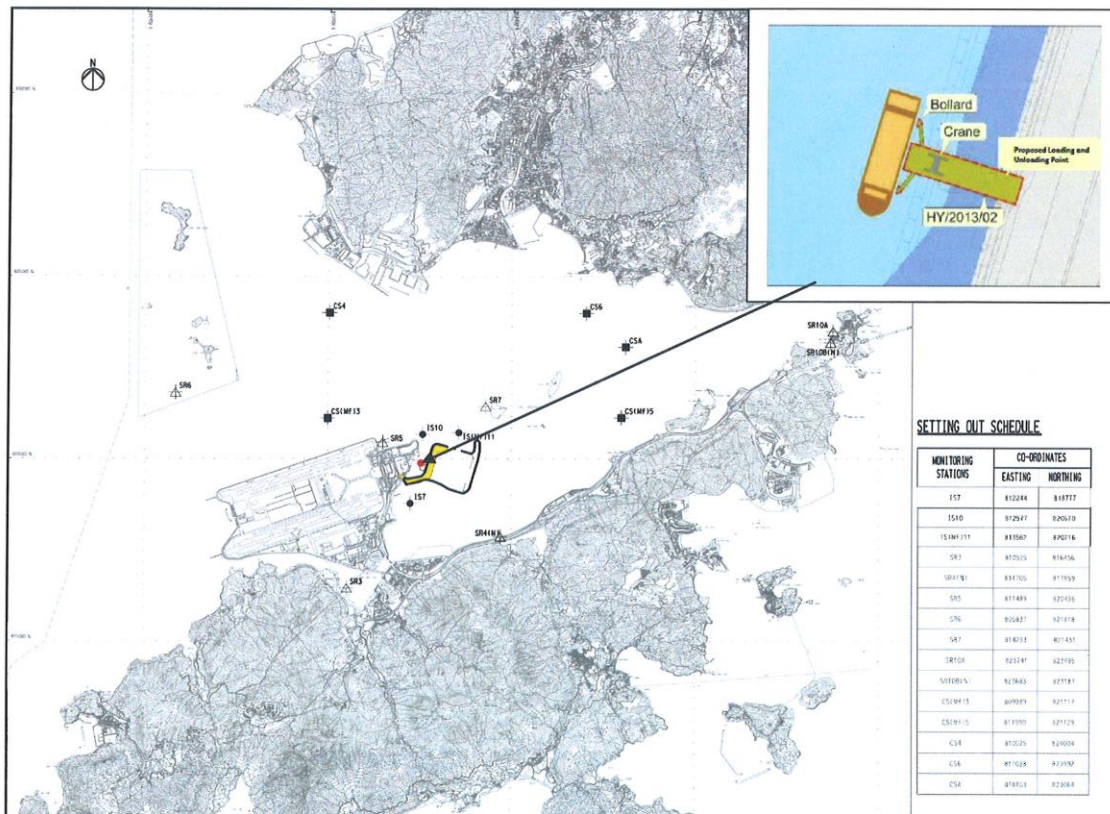


Figure 1 Location of Water Quality Monitoring Stations

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Investigation Results:

a) Causes of exceedance

Exceedance was not due to operation of the works under Contract No. HY/2013/02 because:

- Only steel piles installation works was carried out at the temporary loading and unloading point in Portion A1 during the monitoring period which was unlikely to generate much suspended solids in the marine water. Location plan showing the location of the above mentioned works and all relevant WQM stations.
- The exceedance was recorded during flood tide in which the direction of flow was flowing from east to west and the monitoring station IS(Mf)11 is located at the east side (upstream) of the above mentioned works area and no water can pass through the box culvert connecting between the Airport Island and the HKBCF from south to north side to the monitoring station IS(Mf)11. Secondly, suspended solids value recorded at Impact Station closer to the works (e.g. IS10) is below the Action and Limit Level during the same tide on the same day. Therefore it is unlikely that the exceedance recorded was contributed by the works under Contract No. HY/2013/02.
- The actual marine piling works at the temporary loading and unloading point was confirmed to be carried out from 02 to 30 December 2015. Same type of works was carried out at the same works area in other days of the above mentioned period but no exceedance of SS was recorded.
- The exceedance was considered as non-Project related.

b) Action required under the action plan

1. Repeat in situ measurement on next day of exceedance to confirm findings;
2. Identify source(s) of impact;
3. Inform IEC, Contract and ER;
4. Check monitoring data, all plant, equipment and Contractor's working methods.

c) Action taken under the action plan

1. Not applicable as SS was not measured in situ;
2. After considered the above mentioned investigation results, it appears that it was unlikely that the SS exceedance was attributed to the above mentioned work site of this Contract;
3. The exceedance was informed by IEC and ER;
4. Monitoring data, all plant, equipment and Contractor's working methods were checked;
5. Since it is considered that the SS exceedance is unlikely to be project related, no further action was taken.

d) ET's conclusions and recommendations for mitigation

The Contractor was reminded to ensure provision of ongoing maintenance to the silt curtains and to carry out maintenance work once defects were found.

e) Contractor's actions to implement the mitigation

Maintenance work of the silt curtain was carried out by the Contractor on a daily basis except Sundays and Public Holidays.

ET Leader Signature & Date  18-Jan-16