

**REPORT OF THE 13TH MEETING OF THE MALAYSIA-SINGAPORE JOINT
COMMITTEE ON THE ENVIRONMENT WORKING GROUP (MSJCE WG)
19–20 MAY 2015**

1 INTRODUCTION

1.1 The 13th Meeting of the Malaysia-Singapore Joint Committee on the Environment Working Group (MSJCE WG) was held in Singapore on 19–20 May 2015. The respective delegation lists are attached in **Annex 1**.

2 WELCOME REMARKS

2.1 Mr Ronnie Tay, Co-Chairperson of the MSJCE WG, extended a warm welcome to all delegates of the 13th MSJCE WG. He said that Malaysia and Singapore enjoyed a close working relationship and hoped that the strong co-operation on the environment between Malaysia and Singapore would continue.

2.2 On behalf of the Malaysia delegation, Dato' Halimah Hassan, Co-Chairperson of the MSJCE WG, expressed her appreciation to Singapore for the arrangements for the MSJCE WG Meeting. She noted that the WG Meeting would discuss many issues relating to environmental quality on both sides, such as vehicular emissions, water quality, and environmental training, and hoped for the continual exchange of views on environmental issues of mutual interest.

3 ADOPTION OF AGENDA

3.1 The Meeting adopted the Agenda, with the agenda item below worded as follows:

Agenda 10: Other Matters

(ix) Complaints on Smell (Proposed Procedure for Notification and Mutual Assistance for Smell Nuisance Incidents)

3.2 The Agenda is attached at **Annex 2**.

4 BUSINESS ARRANGEMENT

4.1 The Meeting was conducted in plenary.

5 VEHICULAR EMISSIONS

5.1 Singapore presented the Joint Information Paper on Vehicular Emissions as attached in **Annex 3**.

5.2 The Meeting noted the decline in the number of smoky vehicles on both sides of the Causeway. Singapore thanked Malaysia for their co-operation and assistance in publicizing Singapore's tightened smoke opacity limit, and for stepping up enforcement against smoky vehicles. Singapore added that they would monitor the number of Malaysian commercial vehicles caught for smoke emissions at the checkpoints, and the Expert Group on Vehicular Emissions would update the WG on the statistics over time.

5.3 Malaysia informed that they would continue to promote awareness of Singapore's tightened smoke opacity limit of 40 HSU. Malaysia also updated that they would be introducing EURO4M petrol for RON97 at their petrol stations. Both sides agreed to continue the exchange of information on their policies on vehicular emissions.

5.4 Singapore shared with the meeting that since the incorporation of PM2.5 in their Pollutant Standards Index (PSI), Singapore had seen more days with 'Moderate' air quality even though the air quality had not changed. Singapore noted that in February 2015, the PSI in Singapore had spiked and there were queries from the public. Singapore's investigations showed that the source was not domestic and thus they contacted Malaysia for more information. Malaysia subsequently responded that there was a landfill fire in Tanjung Langsat in Johor and that they had taken measures to put it out. Singapore thanked Malaysia for their co-operation during that episode.

5.6 Malaysia also shared that they had adopted a new Malaysian Ambient Air Quality Standards which included PM_{2.5} and WHO Air Guidelines had been used as reference.

6 WATER QUALITY IN THE STRAITS OF JOHOR (SOJ)

Joint Seawater Quality Monitoring Report

6.1 Singapore presented the Joint Information Paper as attached in **Annex 4**, which summarised the results of the joint seawater monitoring programme of the Straits of Johor (SOJ) for the period of November 2014 to January 2015.

6.2 The Meeting noted that the overall water quality in the SOJ was in the 'Good' to 'Moderate' range for the period under review. Dissolved oxygen (DO) and faecal coliform readings were in the 'Poor' range at some of the sampling points. Spikes in DO, total suspended solids (TSS) and faecal coliform readings at some of the sampling points indicated that the SOJ's water quality continued to be affected by faecal coliform pollution, nutrient and sediment discharges. While the overall water quality of the SOJ in 2014 had improved slightly when compared to 2013, the water quality was still poorer than that of 2011 and 2012.

6.3 Singapore highlighted that at the Expert Group (EG) meeting on 23 April 2015, the EG had noted the spikes in faecal coliform readings recorded in November 2014 at some of the sampling points, which indicated sewage pollution in the SOJ. Sewage discharge would also be high in nutrients such as nitrates, ammonia, and

phosphates, which could stimulate algae blooms. There were also spikes in the DO, TSS, and hydrocarbon (DDPH) readings for the sampling conducted by DOE (Johor) in November 2014.

6.4 The Meeting noted Malaysia's long term plans under the Iskandar Malaysia project to improve the water quality in the SOJ. Malaysia shared that the clean-up of Sungai Segget had started and was expected to be completed in 2017; the clean-up of Sungai Skudai was also on-going. In this regard, some discharges into the SOJ could be expected from construction work to rehabilitate the rivers. Malaysia would continue their water quality monitoring programme and their enforcement activities to ensure compliance with the related regulations. Singapore requested Malaysia to keep them updated on the progress of Malaysia's plans to improve the water quality in the SOJ.

6.5 Singapore added that the EG meeting on 23 April 2015 had also discussed the massive fish death in February 2015 linked to algae bloom, which had affected both Malaysian and Singapore fish farms. The EG had also been updated on the sighting of what looked like palm oil residue affecting Singapore fish farms and beaches from time to time. The oil was yellowish or white and was consistent with oil of vegetable origin.

6.6 Singapore presented photographs of palm oil residue in Singapore's beaches and fish farms mostly at the eastern SOJ, and a map of the locations of the sightings of the palm oil residue. Singapore noted that the sightings had been occurring every few months, usually following heavy rain and ebbing tide, and could not be traced to Singapore sources.

6.7 Malaysia requested more information on the palm oil incidents for further investigation and assured Singapore that action would be taken if the pollution was found to be from industries licensed by DOE. Malaysia also requested Singapore to alert them of such incidents so that they could follow up with investigations to check if their industries were responsible for the oily discharges. Singapore agreed to provide the requested information. Both sides also agreed that it was critical for both countries to control land-based sources of pollution, continue the joint seawater quality monitoring programme, and take measures to improve water quality in the SOJ.

6.8 Singapore shared that there was an oil pollution incident on 7 April 2015 in Johor River, where oil patches were observed upstream of the Johor River Waterworks, and that the incident had caused the shutdown of the Johor River Waterworks for 44 hours from 7 to 9 April 2015. There was also an earlier oil spill incident on 2 April 2015 which had resulted in SAJ Semangar and Loji Air Sungai Johor being shut down. Singapore understood that the source of pollution was an illegal used tyre processing factory.

6.9 Malaysia replied that they were aware of the incident and action had been taken to shut down the illegal factory. Malaysia assured that any pollution incident would be investigated and necessary enforcement actions taken.

6.10 Singapore stated that the recent oil spill incident was the third incident in the Johor River catchment, with the past two incidents occurring in 1998 and 2008. The Johor River Waterworks also had to shut down due to pollution caused by mining activities along Sungai Pelelah in 2012 and 2014. As the water quality in Johor River was of great interest and concern to both Singapore and Malaysia, the meeting agreed to continue to work together to prevent the recurrence of such incidents.

7 PROGRESS REPORT ON THE MONITORING OF THE ECOLOGY AND MORPHOLOGY IN AND AROUND THE STRAITS OF JOHOR

7.1 Singapore presented posters of Singapore's marine wildlife to Malaysia, and shared some of the findings from their recent marine biodiversity survey which covered the waters of Singapore and those in and around the SOJ. These findings included the discovery of the *Berthelinia*, "lipstick anemone" and the Nipah crab. Singapore updated that these findings would be published in a research publication in 3Q2015 and would be shared with Malaysia during the 29th MJSCE meeting.

7.2 Malaysia presented the information paper on the Progress of the Ecological and Morphological Monitoring Activities in and around the SOJ on the Malaysian side, as attached in **Annex 5**. Malaysia also informed the Meeting that the monitoring of morphology parameters in and around the SOJ was ongoing with bathymetric surveys conducted by the National Hydrographic Centre, Malaysia. Malaysia was also conducting a bathymetry survey from the Causeway to Sungai Melayu.

8 EMERGENCY RESPONSE PLAN (ERP) FOR CHEMICAL SPILL AT MALAYSIA-SINGAPORE SECOND CROSSING

8.1 Singapore presented the Joint Paper on Emergency Response Plan (ERP) for Chemical Spills at the Malaysia-Singapore Second Crossing as attached in **Annex 6**.

8.2 Singapore thanked the agencies of both countries for their hard work in successfully carrying out the 10th joint field exercise on the Second Crossing on 14 May 2015. Through such exercises conducted over the years, both Malaysia and Singapore had developed the capabilities and ensured operational readiness to control and mitigate any chemical spillage at the Second Crossing. The joint field exercises and table-top exercises had also served to strengthen the close working relations and maintain the contact between the response agencies of both countries. Malaysia congratulated Singapore on the successful conduct of the exercise, and informed the Meeting that they would be organising the 11th joint field exercise in 2017.

8.3 Singapore highlighted the importance of joint exercises in familiarising officials from both countries on the procedural requirements and the handling of equipment in dealing with incidents involving the release of hazardous chemicals at the Second Crossing. The Meeting agreed that both countries should review and fine-tune the ERP regularly to ensure its effectiveness in responding to incidents. Malaysia shared that further amendments had been made to the ERP after the 9th joint field exercise

and the Meeting tasked the EG to confirm the amendments to the ERP for adoption by the MSJCE.

9 REPORT BY MSJCE EXPERT GROUP

9.1 Emergency Response Plan (ERP) for Chemical Spills in the East Johor Straits

9.1.1 Malaysia proposed to host the table-top exercise in 2016, followed by the field exercise in 2017. Singapore highlighted that Malaysia's proposed exercise schedule would conflict with the chemical spill exercise at the Second Crossing scheduled to be held in 2017. After deliberation, the Meeting agreed that Malaysia would host both the table-top and the field exercise for the chemical spill in the East Johor Straits in 2016.

9.2 Collaboration between Malaysia & Singapore in the Area of Oil Spill Prevention and Control in the Straits of Johor

9.2.1 Malaysia presented a paper titled Joint Mechanism for Control of Illegal Tankers Desludging under the Collaboration between Malaysia and Singapore in the Area of Oil Spill Prevention and Control in the SOJ, as attached in **Annex 7**. Malaysia was of the view that collaboration in the area of oil spill prevention and control with particular emphasis on DNA profiling and finger printing should be enhanced as it was important to ensure effective enforcement. The Meeting noted that work was in progress to refine the draft proposal in consultation with the maritime agencies.

10 EXCHANGE OF INFORMATION UNDER THE SETTLEMENT AGREEMENT

10.1 Update on Lido Boulevard Project

10.1.1 Malaysia updated that the reclamation works had not re-commenced for the Lido Boulevard project since the prohibition order was revoked in January 2014. Malaysia informed the Meeting that there had been no revised EIA and EMP reports received by DOE. Malaysia reassured Singapore that the DOE and Malaysia's other relevant authorities would take measures to ensure that all Malaysia's environmental laws and regulations were complied with by the project proponent. Singapore requested DOE to provide the environment monitoring data for that project to Singapore three months after the project's commencement.

10.2 Update on Pulau Tekong Reclamation

10.2.1 Singapore updated the Meeting that as at end April 2015, 99% of the works on the south-western profile at Area D had been completed. Singapore also informed the Meeting that the reclamation works for the area commenced

in July 2010 and was scheduled for completion in June 2015, subject to the availability of resources and site conditions.

10.2.2 Malaysia thanked Singapore for the update and reiterated their concern on the slope stability at the “bite” area and requested Singapore to monitor the stability of the slope to ensure that there would not be any slope failure and wished to be updated on the matter.

10.2.3 Malaysia re-emphasized their concern over the rate of sedimentation at and beyond the maritime boundary area, particularly within the vicinity of the “nose” area, in view of the fact that this area was the narrowest portion of the Calder Channel and was in close proximity to the Johor Port Anchorage (JPA) area.

10.2.4 Malaysia informed that they had received the bathymetry monitoring results of the nose and the area adjacent to the maritime boundary via the letter from NEA dated 20 November 2014. Malaysia was currently studying the survey finding and would revert to Singapore for further clarification. Singapore reassured Malaysia that Singapore’s project consultant had analysed that the stability of the underwater slope at the capital dredging area had a Factor of Safety (FOS) which was significantly higher than the minimum FOS under Singapore’s established Code of Practice.

10.3 Update on the Streamlining of Changi East Finger

10.3.1 Singapore updated the Meeting that as at end April 2015, 100% of the streamlining of Changi East Finger had been completed. Malaysia would like to thank Singapore for the updates on the status of the streamlining of Changi East Finger.

10.3.2 Malaysia would like to reiterate that Malaysia’s main concern was with regard to the effective reduction of current instability (eddy formation) at the Changi East Finger, to ensure smooth and safe passage of vessels up to MSE, Pasir Gudang and Tanjung Langsat, Johor. This concern was stated on page 43 of the Group of Experts (GOE) Final Report (5 November 2004), which pointed out that “*the GOE considers the flow pattern does represent an additional hazard in the long term and recommends that in the planning in this region, proper attention be given to optimizing the alignment of the Changi Finger shore to eliminate eddy formation which is considered to be achievable through the sensitivity tests*”.

10.3.3 Referring to the statement made by Singapore that the streamlining of the Changi East Finger was scheduled to be completed by 31 March 2015, Malaysia requested for further updates from Singapore on the current status of the project and for further updates on the reduction of ‘eddies’ at the Kuala Johor Channel near Changi East Finger and hydraulic study that has been conducted post completion of the streamlining of Changi East Finger. Singapore replied that a survey would be carried out during the peak spring tide in May 2015 to validate the prediction outlined in the Case M1 report that the current instability issue would be fully resolved after the completion of the

Changi East Finger. The findings would be shared with Malaysia in due course.

11 COLLABORATION BETWEEN SINGAPORE ENVIRONMENT INSTITUTE (SEI) AND ENVIRONMENT INSTITUTE OF MALAYSIA (E/MAS)

11.1 Singapore presented the information paper on Collaboration between E/MAS and SEI as attached in **Annex 8**.

11.2 The Meeting noted the close co-operation and support between the training institutes on the exchange of training opportunities and resources. The Meeting hoped that such collaboration in environmental training and initiatives would continue, for the enhancement of environmental capacity and training of officers from both countries.

11.3 Singapore invited Malaysia to participate in the international training programmes on “Climate Change and Emission Reduction” and “Environmental Protection and Management”, to be conducted by SEI under the auspices of the Singapore Cooperation Programme Training Award (SCPTA) from 20 to 24 July 2015 and 27 to 31 July 2015 respectively.

12 OTHER MATTERS

12.1 Refinery and Petrochemical Integrated Development (RAPID) in Pengerang

12.1.1 Malaysia updated that 100% of the earthworks for Phase 1 had been completed. On Singapore’s request for technical details of the mitigation measures and pollution control equipment, Malaysia reiterated that the project was in compliance with all technical requirement and specification within Malaysia’s domestic laws and regulations. Malaysia said that the EIA results had shown that the development project would not result in significant risk to its surroundings within Malaysia and thus no risk should extend to Singapore.

12.1.2 On Singapore’s request for an updated EIA report for RAPID, Malaysia shared that there was no updated EIA report; however, DOE had approved the EIA report for a proposed petrochemical plant in the RAPID project site.

12.2 Tuas Desalination Plant

12.2.1 Singapore said that the Tuas EMMP report was shared with Malaysia on 20 November 2014. Malaysia acknowledged receipt of the Tuas EMMP report that was sent to Malaysia on 20 November 2014. Malaysia raised concerns on the concentrate stream from the ultra-filtration (UF) process as this concentrate contained high organic matter and suspended solids, and the disposal of this concentrate could affect the environment. Singapore noted Malaysia’s concerns and would reply in due course. For other matters arising from this project, Malaysia would write in to Singapore for further clarification.

12.3 Development of a Port at Tuas

12.3.1 Singapore said that DOE's queries had been addressed in NEA's letter dated 13 May 2015. Malaysia acknowledged receipt of NEA's letter dated 13 May 2015 and said that they would provide clarification on the specific environmental monitoring data or current data that Malaysia had requested in DOE's reply dated 28 October 2014 to NEA.

12.3.2. On the relevance of sand source information requested, Malaysia was of the view that the identification of the source of the sand would be relevant to their understanding of the scope of the project, the quality of the sand and its impact on both Malaysia and Singapore. On their request for information on the sand source for this reclamation project, Malaysia explained that they had banned sand exports to Singapore. Malaysia also had concerns on the sand quality used in the reclamation project, which could impact the water quality in the SOJ. Singapore replied that the reclamation sand was not from Malaysia. Singapore would review Malaysia's request for the technical parameters of the sand used in this reclamation project and update Malaysia in due course.

12.3.3 Malaysia also looked forward to receiving the method statement for reclamation and dredging activities to better determine the potential impact of the development and operation of the said project on Malaysia's water quality and coastal areas, and requested Singapore to share the findings of their marine risk assessment study.

12.4 Coastal Waterfront Development at Tuas and Jurong Island

12.4.1 Singapore said that DOE's queries had been addressed in NEA's letter dated 13 May 2015. Malaysia acknowledged receipt of NEA's letter dated 13 May 2015 and said that they would provide clarification on the specific environmental monitoring data or current data that Malaysia had requested in DOE's reply dated 28 October 2014 to NEA.

12.4.2 On the relevance of sand source information requested, Malaysia was of the view that the identification of the source of the sand would be relevant to their understanding of the scope of the project, the quality of the sand and its impact on both Malaysia and Singapore. On their request for information on the sand source for this reclamation project, Malaysia explained that they had banned sand exports to Singapore. Malaysia also had concerns on the sand quality used in the reclamation project, which could impact the water quality in the SOJ. Singapore replied that the sand for reclamation was not from Malaysia. Singapore would review Malaysia's request for the technical parameters of the sand used in this reclamation project and update Malaysia in due course.

12.4.3 Malaysia raised concerns that the Tuas Desalination Plant, the Port Development at Tuas and other developments at the Tuas View Extension were in close proximity to or in Point 20 and Point 20 Sliver, that was within Malaysia's territorial waters as shown in Malaysia's 1979 Map of its Territorial Waters and Continental Shelf Boundaries. Malaysia also reiterated that the 1979 Malaysian territorial waters and continental shelf claim lines were drawn in accordance with the principles of the Convention on the Territorial Sea and the Contiguous Zone 1958 and the Convention on the Continental Shelf 1958 as well as principles and rules under customary international law. These principles were also recognized under the 1982 United Nations Convention on the Law of the Sea (UNCLOS). Singapore replied that Singapore had stated their position on this issue in previous exchanges of letters and Singapore's position remained unchanged.

12.5 Proposed Reclamation at Mukim Plentong

12.5.1 Malaysia acknowledged receipt of NEA's letter dated 20 Nov 2014 and said that Malaysia would respond to Singapore's queries and concerns in due course. Unit Perancang Ekonomi Johor (UPENJ) also acknowledged receipt of PUB's letter dated 17 May 2015 (which included Singapore's additional comments and clarifications on the geotechnical assessment reports provided by the developer) and informed that UPENJ would arrange a non-formal meeting with PUB tentatively on 11 June before meeting the project developer to obtain clarification on Singapore's queries.

12.5.2 Singapore reiterated their concerns about the impact of the development which could pose structural risks to the water pipes as the pipes were not designed to take the load of surrounding developments. Singapore also reiterated that there should not be any works within 100m of PUB's pipeline reserve as agreed earlier with UPENJ. UPENJ acknowledged this requirement and would raise this again at the subsequent meeting which would include the developers.

12.5.3 Malaysia took note of Singapore's request for a clearer version of the EIA report as some of the maps and drawings were not legible. In response to Singapore's request that all reclamation works be suspended until Singapore had established that there would be no transboundary impact on Singapore or impact on Singapore's pipelines, Malaysia replied that there were no reclamation works on site and clarified that only earthworks and land-filling works were being carried out to achieve the platform level.

12.6 Country Garden Reclamation Project

12.6.1 Malaysia updated that they had sent the EIA report to Singapore on 23 January 2015. Malaysia clarified that the final approved reclamation profile for

Forest City was the 1,386ha profile indicated as Option 5 in page 6-5 of the Forest City EIA report with strict conditions.

12.6.2 During the project implementation, the project proponents were required to undertake effective mitigating measures and to comply with all EIA approval conditions imposed at all times, to prevent, reduce or control the adverse impact to the environment.

12.6.3 Malaysia would monitor closely the implementation of this proposed project to avoid any adverse impact to the marine environment of the SOJ. Malaysia informed the Meeting that based on their enforcement inspection, they had issued a stop-work order on 13 May 2015 and instructed the project proponent to install additional mitigating measures based on site conditions to prevent any adverse impact to the environment.

12.6.4 Malaysia noted Singapore's concern as stated in NEA's letter dated 6 May 2015 and would respond as soon as possible. To Singapore's query on whether this was the first time a stop-work order had been issued, Malaysia replied that it was the first time; however, the project proponent had ceased reclamation works in June 2014 prior to the submission of its EIA report. Malaysia said that they were equally concerned about the water quality in Malaysian waters and would take the necessary actions to prevent adverse impact to the marine environment in the SOJ.

12.6.5 Singapore thanked DOE for sharing the EIA report for the Forest City development. Singapore asked whether Malaysia would send an updated version of the EIA report as some parts of the EIA report made reference to the 1,600ha profile, contrary to the approved 1,386ha profile. Malaysia replied that they would not send an updated EIA report but would respond to the queries in NEA's letter dated 6 May 2015 in due course.

12.6.6 Singapore said that in view of the potential adverse impact arising from this project on Singapore, Singapore requested that reclamation works on this project be suspended until Singapore had established that there would be no adverse transboundary impact on Singapore from this project.

12.7 R&F Guangzhou Reclamation Project

12.7.1 Malaysia updated that they had sent the EIA report to Singapore on 23 January 2015. Malaysia acknowledged receipt of Singapore's letter dated 6 May 2015 and said that they had directed the developer to install additional mitigating measures to address Singapore's concerns.

12.7.2 Singapore thanked DOE for sharing the EIA report for the Princess Cove development. Singapore requested Malaysia to provide the Environmental Monitoring and Management Programme (EMMP) report for

Princess Cove to validate the field results as reclamation works had been on-going for some time. Malaysia took note of Singapore's request.

12.8 Reclamation Works at Danga Bay

12.8.1 Malaysia updated that the Danga Bay development consisted of multiple parcels and the overall impact of the reclamation projects was still being assessed. Malaysia also informed that the project proponent had ceased works on site on 1 May 2015.

12.8.2 Malaysia clarified that the Malaysian Deputy Minister for Natural Resources and Environment during the 28th MSJCE/27th MSAEV Meetings did not make any official statement to share the EIA report on Danga Bay as quoted by Singapore via their TPNs dated 8 January 2015 and 15 May 2015. Nevertheless, Malaysia reaffirmed their commitment to share the EIA report on Danga Bay once the necessary internal requirements have been met and approved. Singapore took note of Malaysia's clarification but reiterated that Singapore's understanding at the 28th MSJCE/27th MSAEV Meetings was that there was an EIA report for Danga Bay which the Malaysian Deputy Minister for Natural Resources and Environment had offered to share with Singapore.

12.8.3 Singapore said that Singapore's offer of a joint survey to investigate the spillage of materials at Danga Bay remained open but Singapore could go along with separate investigations and surveys if Malaysia desired. Malaysia replied that they would conduct separate investigations in June 2015 and present the survey findings to Singapore when ready and requested the same of Singapore. Singapore noted Malaysia's preference and would share our survey results with Malaysia in due course.

12.8.4 Singapore said that they remained very concerned with the potential adverse impact arising from the reclamation works at Danga Bay on receptors in Singapore. Singapore sought Malaysia's co-operation for all reclamation works at Danga Bay to be suspended until Singapore had received and studied all the relevant information, including the EIA report, and established that there would be no adverse transboundary impact on Singapore from this project.

12.8.5 Singapore recapped that in Malaysia's TPN dated 4 May 2015, Malaysia shared that they had requested their agencies in Jan and Mar 2015 to assess the transboundary impact on the Straits of Johor arising from the Danga Bay, Senibong and Kampung Rekoh projects. Singapore sought Malaysia's co-operation for reclamation works on these projects to be suspended until Singapore had received and studied all the relevant information, including the EIA report, and established that there would be no adverse transboundary impact on Singapore from these projects. Malaysia updated that the EIA reports for the Senibong and Kampung Rekoh projects had been completed, and that reclamation for these two projects had also been completed. During the reclamation works, mitigating measures had been installed to ensure no adverse impact to the surrounding water. Singapore said that since the EIA reports for these two projects had been completed,

Singapore requested Malaysia to share the EIA reports for these two projects as soon as possible. Malaysia would share the relevant information with Singapore in due course.

12.8.6 Singapore recapped that in Malaysia's TPN dated 4 May 2015, Malaysia stated that reclamation works had not started for the Pengerang Petroleum and Maritime Industrial Park. Singapore requested DOE to provide them the EIA report for this project before reclamation works commenced. Malaysia said that they were in consultation with the project proponent to ensure that the project would be in compliance with Malaysia's domestic requirements, laws and international obligation.

12.8.7 Singapore thanked DOE for the EIA reports for Tanjung Piai Maritime Industrial Park and Phase III Development at Pelabuhan Tanjung Pelepas (PTP), which Singapore received on 6 May 2015.

12.8.8 Singapore said that the Sunway Iskandar development was listed as a committed development in the Forest City DEIA report. Singapore requested Malaysia to provide the EIA report for this project prior to commencement of reclamation works. Singapore sought Malaysia's update on the status of this project, given that the developer had launched the sales of this residential project in Singapore. Malaysia said that they would review Singapore's request and reply to Singapore in due course.

12.9 Complaint on Smell (Proposed Procedures for Notification and Mutual Assistance for Smell Nuisance Incidents)

12.9.1 Singapore presented the proposed Procedure for Notification and Mutual Assistance for Smell Nuisance Incidents at Annex 9, which had been presented at the last Working Group Meeting in 2014 as well as the two earlier Expert Group Meetings in 2013 and 2015. Singapore requested that the procedure be formalised to ease the sharing of information and investigation by both countries. Malaysia suggested making it an administrative arrangement, as Malaysia had an existing internal procedure where feedback would be channeled first to DOE Putrajaya and later directed to the respective agencies or offices. Malaysia stated that they would respond to Singapore on DOE Putrajaya's and DOE Johor's contact details. Singapore requested an early adoption of the proposed procedures before the next MSJCE in Oct 2015. Malaysia said that meanwhile it would provide a list of contact persons from DOE Putrajaya and DOE Johor, whom Singapore could email or contact anytime should a smell incident occur.

13. PROPOSED DATE AND VENUE FOR NEXT MSJCE/AEV MEETING AND MSJCE WG MEETING

13.1 Singapore informed the Meeting that the 29th MSJCE and 28th AEV Meetings had been scheduled for 22–24 October 2015 in Singapore.

13.2 On the next MSJCE WG Meeting, the Meeting noted that at the last MSJCE Meeting, both sides agreed that the WG Meeting could be held as frequently as necessary to exchange information and to address issues of mutual concern.

15 **CLOSING**

15.1 The Meeting adjourned with the Co-Chairs expressing their appreciation to all present for their input and contributions towards a successful meeting. Malaysia expressed their appreciation to Singapore for their warm hospitality.

ANNEX 1

Malaysian Delegation for the 13th MSJCE WG Meeting

1. Dato' Halimah Hassan
Director-General
Department of Environment
2. Dr Zulkifli Abdul Rahman
Deputy Director-General
Department of Environment
3. Ms Norlin Jaafar
Director, Assessment Division
Department of Environment
4. Mr Wan Abdul Latiff Wan Jaafar
Director, Water & Marine Division
Department of Environment
5. Ms Mashitah Darus
Director, Air Division
Department of Environment
6. Ms Sharifah Zakiah Syed Sahab
Senior Principal Assistant Director
Department of Environment (Johor)
7. Ms Wan Izar Haizan binti Wan Rosely
Principal Assistant Secretary
Environmental Management and Climate Change Division
Ministry of Natural Resources and Environment
8. Mr Mohd Hafiz Othman
Principal Assistant Secretary
Ministry of Foreign Affairs
9. Prof Dato' Dr Sharifah Mastura Syed Abdullah
Professor, Institute of Climate Change
National University of Malaysia
10. Mr Mohammed Ridha bin Dato' Hj. Abd. Kadir
Deputy Director I
Johor State Economic Planning Unit
11. Mr Muhammad Razif bin Ahmad
General Manager
Johor Port Authority
**attending on 19 May only.*

12. Mr Ahmad Syahrir bin Ashaari
Senior S.H.E. Manager
Johor Port Authority

13. Mr Shah Habidin Arip bin Jaafar
Assistant Director
Marine Department

14. Mr Abdul Hadi bin Nordin
Assistant Director
Marine Department

15. Mr Faezul Adzra Patail
Senior Federal Counsel, International Affairs Division
Attorney General's Chambers

Singapore Delegation for the 13th MSJCE WG Meeting

1. Mr Ronnie Tay
Chief Executive Officer
National Environment Agency
2. Mr Chua Yew Peng
Divisional Director, Policy & Planning Division
National Environment Agency
3. Mr Fong Peng Keong
Director, Pollution Control Department
National Environment Agency
4. Mrs Indrani Rajaram
Project Director & Chief Scientific Officer, Pollution Control Department
National Environment Agency
5. Mr Sim Teck Heng
Senior Engineer, Pollution Control Department
National Environment Agency
6. Ms Fareena binte Abdul Rahim
Senior Engineer, Pollution Control Department
National Environment Agency
7. Ms Geraldine Ow
Engineer, Pollution Control Department
National Environment Agency
8. Ms Tracy Toh
Scientific Officer, Pollution Control Department
National Environment Agency
9. Ms Sharon Seah
Deputy Director, International Relations Department
National Environment Agency
10. Ms Jacin Chan
Senior Assistant Director, International Relations Department
National Environment Agency
11. Ms Janice Gan
Executive, International Relations Department
National Environment Agency
12. Mr Nick Tan
Senior Assistant Director, Environmental Protection Policy Department
National Environment Agency

13. Ms Lynda Lim
Assistant Director, Singapore Environment Institute
National Environment Agency
14. Mr Adrian Tan
Deputy Director, International Relations
Ministry of Environment and Water Resources
15. Ms Joanne Tay
Senior Executive, International Relations
Ministry of Environment and Water Resources
16. Mr Wong Yong Yang
Senior Deputy Director, Water Supply (Plants) Department
PUB
17. Mr Tan Chian Chern
Deputy Director, Policy & Planning Department
PUB
18. Mr Chew Chee Keong
General Manager, Water Supply (Plants) Department
PUB
19. Ms Sarah Hiong
Senior Engineer, Sustainability Office
PUB
20. Mr Lim Wee Kiat
Deputy Chief Hydrographer
Maritime and Port Authority
21. Capt Kevin Wong
Deputy Port Master/ Deputy Director, Safety & Security
Maritime and Port Authority
22. Mr Ramzani Omar
Senior Marine Officer, Emergency Preparedness
Maritime and Port Authority

ANNEX 2

THE 13TH MEETING OF THE MALAYSIA-SINGAPORE JOINT COMMITTEE ON THE ENVIRONMENT WORKING GROUP (MSJCE WG)

Date: 19-20 MAY 2015, SINGAPORE

AGENDA

1. Welcome Remarks by Co-Chairmen
2. Adoption of Agenda
3. Joint Information Paper on Vehicular Emissions
4. Water Quality in the Straits of Johor
 - (i) Joint Seawater Monitoring Report
5. Progress Report on the Monitoring of Ecology and Morphology In and Around the Straits of Johor
6. Emergency Response Plan for Chemical Spill at Malaysia – Singapore Second Crossing
7. Report by MSJCE Expert Group
 - (i) Emergency Response Plan for Chemical Spill in East Straits of Johor
 - (ii) Collaboration between Malaysia and Singapore in the Area of Oil Spill Prevention and Control in the Straits of Johor
8. Exchange of Information under Settlement Agreement
 - (i) Update on Lido Boulevard Project
 - (ii) Update on Pulau Tekong Reclamation
 - (iii) Update on the Streamlining of Changi East Finger
9. Collaboration between EiMAS and SEI
10. Other Matters
 - (i) Update on Refinery And Petrochemical Integrated Development (RAPID) Project in Pengerang
 - (ii) Update on Tuas Desalination Plant Project
 - (iii) Update on Development of a Port at Tuas
 - (iv) Update on Coastal Waterfront Development at Tuas and Jurong Island
 - (v) Update on Proposed Reclamation at Mukim Plentong
 - (vi) Update on Country Garden Reclamation Project
 - (vii) Update on R&F Guangzhou Reclamation Project
 - (viii) Update on Reclamation Works at Danga Bay

- (ix) Complaints on Smell (Proposed Procedure for Notification and Mutual Assistance for Smell Nuisance Incidents)
11. Proposed Date and Venue for Next MSJCE/AEV Meeting and MSJCE WG Meeting

ANNEX 3

MALAYSIA-SINGAPORE JOINT COMMITTEE ON ENVIRONMENT (MSJCE) JOINT INFORMATION PAPER ON VEHICULAR EMISSIONS APRIL 2015

1 Introduction

- 1.1 This paper updates the MSJCE Working Group on the measures adopted by Malaysia and Singapore to control vehicular emissions.

2 Emission Standards for New Vehicles

- 2.1 The prevailing and future emission standards for new vehicles in Malaysia and Singapore are as follows:

2.1.1 Motorcycle Emission Standards

Malaysia	Singapore
EURO I (since 1 July 2004)	EURO III (Since 1 October 2014)
EURO III (target to be implemented in January 2016)	EURO IV (2018 - TBC)
EURO IV (target to be implemented in 2019)	

2.1.2 Vehicle Emission Standards

Vehicle Type	Malaysia	Singapore
Petrol	EURO II (since 1 January 2000)	EURO IV (since 1 April 2014)
	EURO IV (target to be implemented in October 2018)	EURO VI (effective 1 September 2017)
Diesel	EURO I (since 1 January 1999)	EURO V (since 1 January 2014)
	EURO IV (target to be implemented in September 2020)	EURO VI (effective 1 January 2018)

2.1.3 Fuel Quality

	Malaysia	Singapore
Sulphur content in fuel	<p>0.05% (EURO2M) by weight for both diesel and petrol (since 1 September 2009)</p> <p>0.005% (EURO4M) by weight for petrol (Target to be implemented on 1 September 2015 for Petrol RON97 and 1 October 2018 for Petrol RON95).</p> <p>0.001% (EURO5) by weight for both diesel and petrol (target to be implemented on 1 September 2020 for diesel and 1 September 2025 for petrol).</p>	<p>< 0.001% (EURO V) by weight for diesel (since 1 July 2013)</p> <p>< 0.005% (EURO IV) by weight for petrol (since 1 October 2013)</p>
Benzene	From 5% to 3.5% by volume for petrol (target to be implemented on 1 September 2015 for Petrol RON97 and 1 October 2018 for Petrol RON95).	1% by volume for petrol (effective 1 July 2017)
Others	<p>EURO5 diesel specification for other parameters (target to be implemented in stages from 2020 to 2025)</p> <p>EURO5 petrol specification for other parameters (target to be implemented in stages from 2025 to 2030)</p>	<p>EURO V diesel specification (effective from 1 January 2017– all except density and T95 effective from 1 January 2018)</p> <p>EURO V petrol specification (effective from 1 July 2017– all except aromatics effective from 1 December 2018)</p>

2.2. In Malaysia, EURO4M petrol quality is expected to be implemented in stages. EURO4M petrol RON97 is scheduled to be implemented in September 2015 while EURO4M petrol RON95 is targeted for implementation in October 2018, followed by EURO5 petrol fuel in September 2025. However, for diesel fuel quality the Malaysia Government has decided to leapfrog the implementation of EURO4M diesel to EURO5 diesel fuel in September 2020. Malaysia is now in the process of finalizing the new EURO5 fuel quality specification with the oil companies, and the gazette of the regulation.

- 2.3 In Singapore, effective from 1 January 2017 and 1 July 2017, full and modified EURO V specifications will be legislated for diesel and petrol, respectively. There will be a 1 year grace period for density and T95 control in diesel and a 1.5 year grace period for aromatics control in petrol.

3 Exhaust Noise Emission

Malaysia

- 3.1 The control of vehicular noise from exhaust noise emission is enforced under the Environmental Quality (Motor Vehicles Noise) Regulations, 1987. The noise standards are as follows:

Type of Vehicle	Registration Standard for New Vehicle (dBA)
	Current
Motor cycle*	
Below 90 c.c.	92
90 c.c. and above	95
Passengers Vehicle**	
Not more than 9 seats	80
More than 9 seats, less than 3.5 tonnes	81
More than 9 seats, more than 3.5 tonnes, less than 200 h.p. DIN	82
More than 9 seats, more than 3.5 tonnes, 200 h.p. DIN or more	85
Goods Vehicle**	
Less 3.5 tonnes, less than 200 h.p. DIN	81
More than 3.5 tonnes , less than 200 h.p. DIN	86
More than 3.5 tonnes , 200 h.p. DIN or more	88

*Standards based on stationary test

**Standards based on acceleration test

- 3.2 Malaysia is reviewing the vehicular noise emissions standard. The new exhaust noise standard is expected to be implemented by 2016, and would be

based on ECE R41.03 for motorcycles and ECE R51 for passenger and goods vehicles.

Singapore

3.3 Singapore has tightened the noise standards for new and in-use vehicles on 1 October 2010 and 1 April 2011, respectively.

3.4 The current noise standards are as follows:

Type of Vehicle	Registration Standard for New Vehicle (dBA)		Enforcement Standard for In-use Vehicle (dBA)
	Acceleration Test (EU)	Stationary Test (JPN)	Stationary Test
Motor cycle Not more than 80 c.c. More than 80 c.c. but not more than 175 c.c. More than 175 c.c	75 77 80	94	99
Motor car Passengers vehicle not more than 9 seats	74	96 100 (rear engine)	103
Bus / Passengers vehicle more than 9 seats Not more than 2 tonnes More than 2 tonnes but not more than 3.5 tonnes More than 3.5 tonnes, less than 150 kW More than 3.5 tonnes, not less than 150 kW	76 77 78 80	97 99	103 107
Goods Vehicle Not more than 2 tonnes More than 2 tonnes but not more than 3.5 tonnes More than 3.5 tonnes, less than 75 kW More than 3.5 tonnes, not less than 75	76 77 77	97 99	103 107

kW but less than 150 kW	78		
More than 3.5 tonnes, not less than 150kW	80		

- 3.5 The standards are based on the standards adopted by Japan (Articles 30 and 65 of the Safety Regulations for Road Vehicles as amended by the Ministry of Transport Ordinance No. 5 of 21 February 2000 and No. 66 of 20 December 1996, respectively, of Japan) and EU (EC Council Directive 97/24/EC for motorcycle and EC Council Directive 70/157/EEC – equivalent to ECE R41.03 for motorcycles and ECE R51 for passenger cars and goods vehicles adopted by Malaysia). The standards for noise emission for Singapore and Malaysia are comparable and are benchmarked against EC standards and the latest United Nations Economic Commission for Europe (UNECE) Regulations respectively.
- 3.6 Malaysia agreed to share the enforcement action taken against the noisy Malaysia-registered vehicles reported by Singapore.

4 Smoky Vehicle Enforcement

Enforcement in Malaysia

- 4.1 In 2014, 195 enforcement operations were carried out by DOE Johor at the Malaysian Custom Checkpoint in Tanjung Puteri and Tanjung Kupang, Johor Bahru. Throughout the operations, a total of 11,625 vehicles were inspected with 43 compounds, 43 notices and 1 prohibition order were issued to the motorists. From 1 January until 31 March 2015, DOE Johor carried out 55 enforcement operations. Throughout the operation, a total of 3,846 vehicles were inspected, where 7 compounds, 8 notices and 1 prohibition order were issued by DOE Johor.
- 4.2 The current smoke opacity limit for Malaysia is 50 HSU. DOE Johor carries out enforcement operations against smoky commercial vehicles in the daytime and ad-hoc operations at night.
- 4.3 Malaysia agreed to share the enforcement action taken against the smoky Malaysia-registered vehicles reported by Singapore.

Enforcement in Singapore

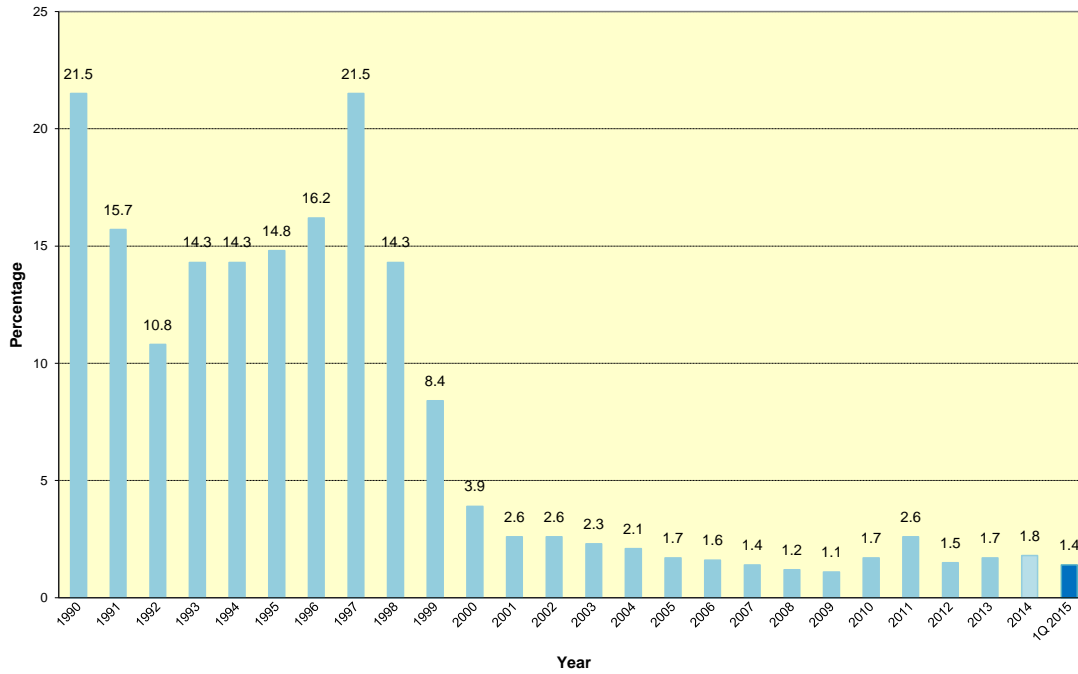
4.4 Since 1 January 2014, the smoke opacity standard for Singapore and foreign registered diesel vehicles has been tightened from 50 HSU to 40 HSU. A grace period of 6 months from 1 January till 30 June 2014 had also been given to allow owners of diesel vehicles to adjust to the tightened standard. During the grace period, warning letters were issued to owners whose vehicles emitted smoke with opacity reading between 41 HSU and 50 HSU. Since 1 July 2014, owners of smoky vehicles emitting smoke with opacity reading greater than 40 HSU are fined. Enforcement operations in Singapore are carried out in the daytime including ad-hoc operations at night. In addition, joint enforcement blitz with other agencies are also conducted to clamp down on smoky, noisy, speeding and illegally-modified vehicles.

4.5 The number of Malaysia-registered vehicles fined for visible smoke emission in Singapore is tabulated below:

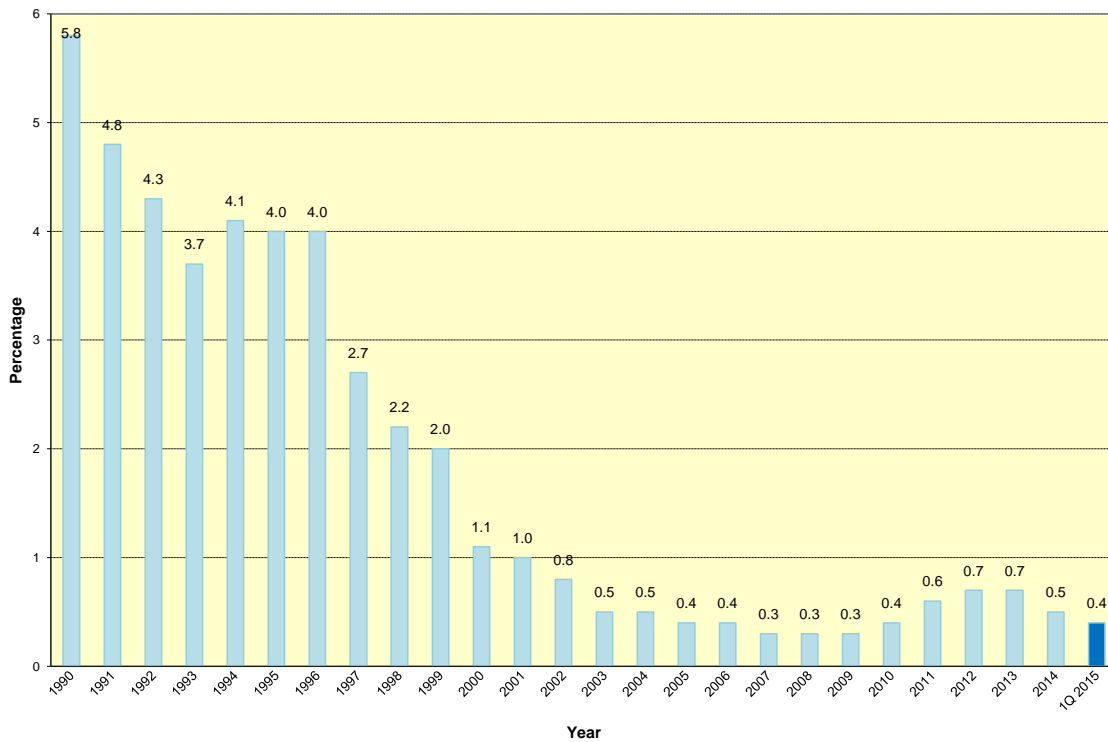
Year	Malaysian Commercial Vehicles				Malaysian Motorcycles
	Fined (41- 50 HSU since 1 July 14)	Fined (51- 70 HSU)	Turned back (>70 HSU)	Total	
2013	-	2,537	399	2,936	725
Jan-Jun 2013	-	1,151	171	1,322	407
Jul-Dec 2013	-	1,386	288	1,674	318
2014	420	1,549	507	2,476	596
Jan-Jun 2014	-	856	333	1,189	368
Jul-Dec 2014	420	693	174	1,287	228
Jan-Mar 2015	211	398	58	667	94

4.6 The charts below show the proportion of smoky vehicles spotted in Singapore over the years from 1990 to March 2015:

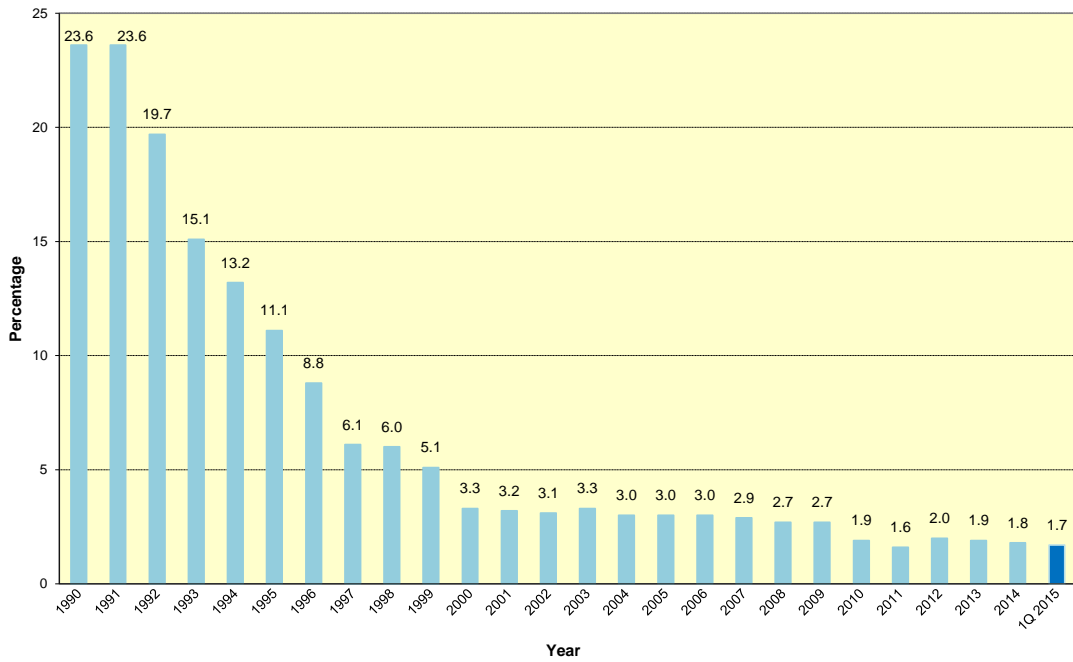
Surveillance of Malaysia Smoky Vehicles Plying Singapore Roads



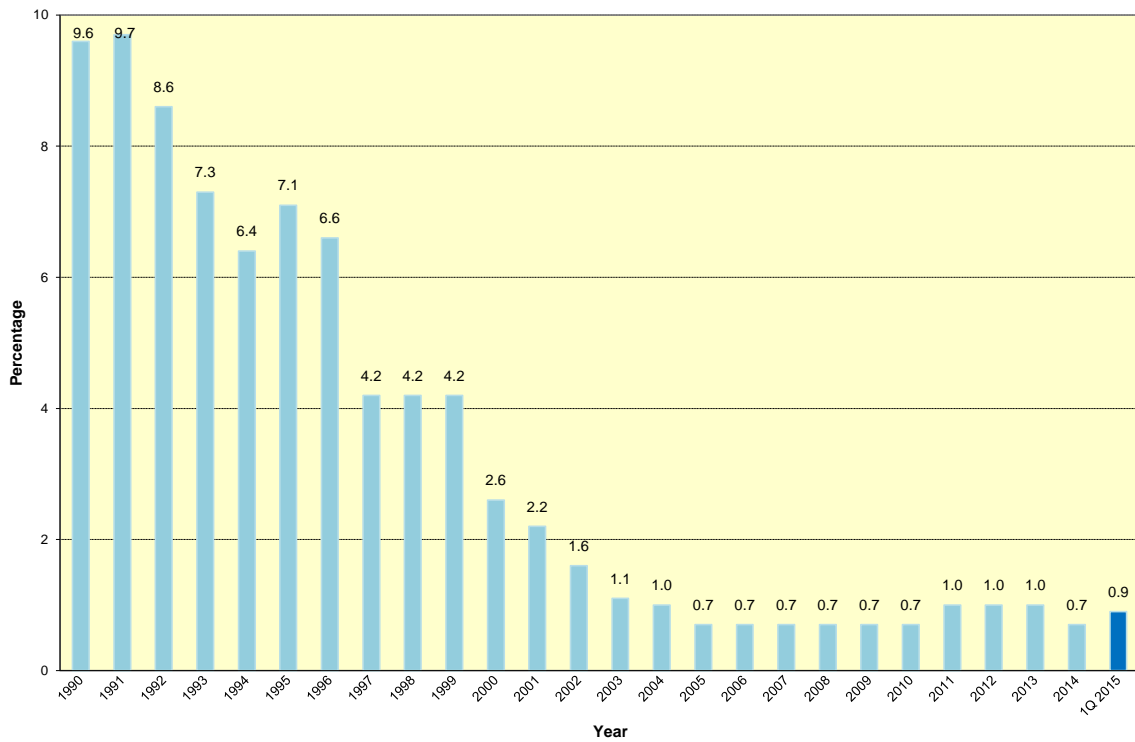
Surveillance of Singapore Smoky Vehicles Plying Singapore Roads



Surveillance of Malaysia Smoky Motorcycles Plying Singapore Roads



Surveillance of Singapore Smoky Motorcycles Plying Singapore Roads



5 Alternatives to Conventional Petrol and Diesel Vehicles

Malaysia

- 5.1 Malaysia continues to promote the use of Natural Gas Vehicles (NGV). As of 31 March 2015, there are total of 85,042 NGV¹ which include taxis and private cars, buses, trucks and others vehicles. There are 179 refuelling stations² in the country. The low NG prices and tax incentives are provided to encourage private vehicle owners to switch to NGV.
- 5.2 As of 31 March 2015, there were a total of 39,184 hybrid vehicles and 1,689 Electric Vehicles (EV) on Malaysia's roads. The exemption of excise duties and import taxes for hybrids and EV will be extended for models that are assembled in Malaysia or Complete Knock-Down (CKD) vehicles. The exemption will be extended until 31 December 2015 for hybrid vehicles and 31 December 2017 for EV.
- 5.3 Malaysia's National Automotive Policy (NAP) 2014 was announced by the Ministry of International Trade and Industry (MITI) in early January 2014. The NAP has been implemented and monitored by the Malaysia Automotive Institute (MAI). One of the main objectives is to make Malaysia a regional automotive hub in energy efficient vehicles (EEV).
- 5.4 Malaysia continues to promote the use of blend biodiesel B5 (5% palm methyl ester with 95% petroleum diesel) which can be used in normal diesel engine vehicles without modification. 5% blend will replace 500,000 tonnes diesel a year and result in reducing 1.53 million tonnes of CO₂ emissions a year. The B5 was implemented in stages in the central region in June 2011, covering Malacca, Negeri Sembilan, Putrajaya, Selangor and Kuala Lumpur. The implementation of B5 in central region was completed in November 2011. The programme was extended to the southern region which covered Johor in July 2013. In March 2014, B5 programme has fully implemented in Peninsular Malaysia (including Northern and Eastern region). In November 2014, the B5 was replaced by B7 (7% palm methyl ester with 93% petroleum diesel). The

¹Note: Data from Malaysia's Road Transport Department. (As at 31 March 2015);

1. NGV (total = 85,042);
 - i. 73,428 taxis/private cars
 - ii. 1,612 buses
 - iii. 10,002 trucks and others

²Note: Data from Malaysia's Petronas Dagangan Bhd. (As at 31 March 2015);

2. NG Refuelling stations in Peninsular Malaysia – 179

B7 programme was further extended to Sabah, Sarawak and Labuan in November 2014.

Singapore

- 5.5 Singapore encourages the use of 'green vehicles'. Singapore introduced the Green Vehicle Rebates (GVR) in January 2001 for electric and hybrid vehicles, and extended it to include electric and petrol-electric hybrid vehicles (commercial vehicles including buses) registered from 1 July 2010.
- 5.6 In January 2013, the GVR Scheme for new passenger cars was replaced with a Carbon Emissions-based Vehicle Scheme (CEVS). CEVS offers tax rebates based on carbon efficiency. The GVR for motorcycles, commercial vehicles and buses was extended to June 2015.

6 Carbon Emissions-based Vehicle Scheme

- 6.1 CEVS was introduced on 1 January 2013 as a carbon mitigation measure for the transport sector. Under this scheme, buyers of lower carbon emission cars will benefit from rebates while buyers of high carbon emission models will pay a surcharge.
- 6.2 The scheme will be revised on 1 July 2015 to further encourage vehicle buyers to shift to low carbon emission models. This revision entails (i) shifting of the bands towards the lower range of CO₂ emissions to take into account improved vehicle emissions due to technology and success of the CEVS; and (ii) increasing of the amount of rebate and surcharge for the lowest and highest emissions bands, respectively, from \$20,000 to \$30,000.
- 6.3 As taxis generally clock higher mileage than cars, the revised CEVS rebate and surcharge for taxis will be higher by 50% to encourage taxi companies to adopt lower carbon emission models for their fleet.

7 Early Turnover Scheme

- 7.1 Singapore implemented the Early Turnover Scheme (ETS) in April 2013, which is aimed at encouraging vehicle owners to replace their old and more pollutive Category (Cat) C Pre-Euro/Euro I diesel vehicles with cleaner models, in line with the Government's efforts to further improve Singapore's ambient air quality by regulating vehicular emissions.

- 7.2 The scheme was enhanced on 12 March 2014, with the (i) enhancement of the Certificate of Entitlement (COE) bonus for light and heavy Pre-Euro/Euro I vehicles respectively to 20% and 100%; (ii) introduction of a minimum payment of 10% of the value of the Prevailing Quota Premium (PQP); and (iii) extension of the scheme for Pre-Euro/Euro I vehicles till 30 April 2016.
- 7.3 On 1 August 2015, the scheme will be enhanced to allow more vehicles to be eligible for the scheme. This enhanced scheme for Euro II/III Cat C diesel vehicles will run for two years till 31 July 2017. The main enhancements to the scheme are as follows:
- (i) Scheme extended to owners of Euro II/III Cat C diesel light (COE bonus of 10%) and heavy (COE bonus of 90%) vehicles; and
 - (ii) Additional COE bonuses for owners of Pre-Euro/Euro I/Euro II/ Euro III light vehicles and heavy vehicles if they choose to replace the vehicles with even cleaner Euro VI models and its equivalents

8 Air Quality

Singapore

- 8.1 Air quality in Singapore is monitored through a network of 22 fixed stations. Daily air quality levels are reported in terms of the Pollutant Standards Index (PSI). Starting 1 April 2014, Singapore has moved to an integrated air quality reporting index, where PM_{2.5} is incorporated into the PSI along with the existing five pollutant parameters. Therefore, the six pollutant parameters tracked in the new PSI are sulphur dioxide (SO₂), particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), nitrogen dioxide (NO₂), carbon monoxide (CO) and ground level ozone (O₃).
- 8.2 In August 2012, Singapore announced air quality targets based on WHO guidelines to be achieved by 2020, with interim target (IT-2) for SO₂ and IT-3 for PM_{2.5}. For PM₁₀, O₃, NO₂ and CO, the final WHO guidelines have been adopted. The final WHO guidelines for SO₂ and PM_{2.5} will be achieved in the longer term.
- 8.3 Before the incorporation of PM_{2.5} in the PSI, Singapore enjoyed more than 90% “Good” days on the PSI scale. With the incorporation of PM_{2.5} in the PSI more days are classified as “Moderate” days even though the air quality has not changed.

- 8.4 The PSI, 1-hour PM_{2.5} concentrations and other pollutant concentrations are published hourly. During haze periods (around June to October) NEA will also provide an air quality forecast for the next 24 hours taking into consideration weather conditions, fire situation in the region, and other factors. Health advisories are issued based on this forecast. The forecast is released daily at 5 pm during the haze period.
- 8.5 The air quality information, forecast and advisory are available on the NEA's website (www.nea.gov.sg), the haze microsite (www.haze.gov.sg), NEA Facebook (www.facebook.com/NEASingapore), NEA Twitter (@NEAsg) and smart phone app, MyEnv. MyEnv app also carries air quality trend charts and 1-h PM_{2.5} readings.
- 8.6 In February 2015, Singapore experienced slight haziness from 12 to 16 February. During this period, NEA received feedback from residents, especially those living in the north-eastern part of Singapore, of burning chemical/plastic smell in the air. The 24-hr PSI peaked at 83 on 13 February with highest 1-hr PM_{2.5} concentration of 155 µg/m³ recorded at 3 am on 13 February. Investigations showed that the haziness and smell did not originate from Singapore sources but could have originated from Johor as the public feedback was only received from residents staying in the north-eastern part of Singapore and the prevailing wind at that time was north-easterly.
- 8.7 Malaysia informed that there was a fire incident at the Tanjung Langsat Landfill in Johor. The local authorities had put up intensive mitigation measures including capping the affected landfill cells with 800 truckloads of soil to put out the fire.
- 8.8 Singapore and Malaysia agreed to share general information on air pollution incidents e.g. fires, industrial upsets etc. with potential to affect the air quality of both Singapore and Malaysia.

Malaysia

- 8.9 Malaysia continuously monitors air quality status through five (5) main pollutants namely PM₁₀, sulphur dioxide, nitrogen dioxide, carbon monoxide and ground level ozone. These parameters are measured through telemetry process and used in calculating the Air Pollutant Index (API). The API was developed based on scientific assessment to indicate air quality, the presence of pollutants and its impact on health in an easily comprehensible manner.
- 8.10 Currently, Malaysia has a total of 52 continuous air quality monitoring stations throughout the country and out of these, 15 stations have been equipped with PM_{2.5} analyzers.

- 8.11 Malaysia publishes hourly API readings on DOE's website and the readings are reported daily in the local media. API is also available on the smartphone app – MyIPU. There is also digital display of API on the billboards of major highways.
- 8.12 DOE is in the process of conducting a study to incorporate PM_{2.5} into the API along with the existing pollutant parameters.
- 8.13 DOE has finalized the Malaysia Ambient Air Quality Standards (MAAQS) to include PM_{2.5} standard using the World Health Organization (WHO) Guidelines, 2006 as reference. Standards for the existing parameters (PM₁₀, sulphur dioxide, nitrogen dioxide, carbon monoxide and ground level ozone) will be tightened to a more stringent level with reference to WHO standards. The Malaysia's Interim Target 1 (IT-1) has been implemented in 2015. IT-2 and IT-3 will be implemented in 2018 and 2020, respectively.
- 8.14 The Environmental Quality (Clean Air) Regulations 2014 were gazetted on 4 June 2014 and came into force on 5 June 2014.

**JOINT SEAWATER MONITORING PROGRAMME
STRAITS OF JOHOR
(NOV 2014 to JAN 2015)**

(Joint Malaysia/Singapore Information Paper)

Introduction

This paper summarises the results of the joint seawater monitoring programme of the Straits of Johor (SOJ) based on the results of sampling conducted from Nov 2014 to Jan 2015.

Background

2 Following the last review of the joint water quality monitoring programme of the SOJ at the 4th MSJCE Working Group Meeting in Nov 2005, water quality monitoring of the SOJ is being conducted at 20 sampling points as shown in **Map 1**. The co-ordinates of the sampling points are in **Annex 1**.

3 The list of 27 parameters monitored under the programme is in **Annex 2**. Sampling is conducted at 3 depths (surface, middle and bottom) for total suspended solids (TSS), turbidity, salinity and dissolved oxygen (DO). For the rest of the parameters only surface measurements are taken.

Overall Water Quality

4 The overall water quality of the SOJ is assessed based on the adopted water quality index system, which measures six key parameters of DO, TSS, Total Organic Carbon, Oil & Grease, Ammoniacal-N and Faecal Coliform. Details of the index system are at **Annex 3**. The overall water quality of the SOJ for the period Nov 2014 to Jan 2015 is shown in **Map 2**.

5 The overall water quality along the SOJ was in the 'Good' to the 'Moderate' range for the period under review.

Key Water Quality Parameters

6 The water quality in terms of the six key parameters is presented in **Maps 3 to 12**.

7 Dissolved oxygen was in the 'Poor' range at the following points:

- Surface samples at SJ2 and SJ5 along East SOJ and at SJ7B along West SOJ. DO readings were in the super-saturation range (>8 mg/l) probably due to algal bloom. Please see **Map 3**.
- Bottom samples from SJ4A to SJ5 along East SOJ. Please see **Map 5**.

8 Faecal Coliform was in the "Poor" range at SJ2, SJ6 and SJ7. Please see **Map 6**. There was a spike in the faecal coliform readings at these points in Nov 2014 indicating faecal contamination. Please see **Figs 7a and 7b**.

Results of Layered Sampling

9 DO, salinity, TSS and turbidity measurements are being conducted at 3 levels (surface, middle and bottom). The following was observed for the period under review:

- DO readings were stratified at SJ 4 and SJ5 along East SOJ and at SJ6 and SJ7B along West SOJ. Please see **Figs 1a and 1b**.
- Salinity readings were stratified at SJ4A and SJ5 along East SOJ and between SJ6 and SJ8A along West SOJ. Please see **Figs 2a and 2b**.
- TSS readings were stratified at SJ3 and SJ7A. Please see **Figs 3a and 3b**.
- Turbidity readings were not stratified. Please see **4a and 4b**.

Suitability for Recreation

10 Based on the FC guideline of 1,000 counts per 100ml, the following stretches of the SOJ were not suitable for body contact recreation for the period under review:

- SJ2 and SJ4A to SJ5 along East SOJ.
- SJ6 to SJ8A along West SOJ.

Please see **Map 6**.

Annual Trends

11 The annual trend graphs for the six key parameters are given in **Figures 1a to 10b**. Spikes in the surface DO (SJ2 and SJ5 along East SOJ), TSS (SJ1 and EM7 along East SOJ and SJ7A along West SOJ) and the faecal coliform readings (SJ2 along East SOJ and at SJ6 and SJ7 along West SOJ) indicate that SOJ water quality continues to be affected by faecal pollution, nutrient and sediment discharges.

12 The annual trends in the overall water quality of the East and West SOJ from 2000 to 2014 are given in **Fig 11**. There has been an improvement in the overall water quality of the SOJ in 2014 compared to 2013.

Conclusion

13 The overall water quality along the SOJ was in the 'Good' to 'Moderate' range for the period under review. DO and faecal coliform readings were in the 'Poor' range at some of the sampling points. Spikes in DO, TSS and faecal coliform readings at some of the sampling points indicate that SOJ water quality continues to be affected by faecal pollution, nutrient and sediment discharges. While the overall water quality of the SOJ in 2014 improved slightly when compared to 2013, the water quality has yet to recover to the levels in 2011-12.

14 Of the three Water Reclamation Plants (WRPs) under Singapore that discharge treated effluent into the SOJ, treated effluent discharge from Seletar WRP and Kim Chuan WRP had ceased in Feb 2006 and Dec 2007 respectively with the decommissioning of the two plants under the first phase of the Deep Tunnel Sewerage System project. The volume of treated effluent from Kranji WRP that currently discharges into the SOJ is about half of the volume in 2001, as part of the treated effluent is used as feedstock for NEWater production.

15 Malaysia has long-term plans to improve the water quality in the affected rivers under the Iskandar Malaysia project. These included programmes on river rehabilitation and cleanup to improve the water quality of Sungai Segget, Sungai Skudai and Sungai Tebrau, removal of sediments, deepening of rivers, flood mitigation measures, installation of mechanical trash removal systems and construction of centralised sewerage treatment systems as well as resettlement of the squatters along Skudai and Tebrau rivers.

Annex 1: Co-ordinates of the MSJCE Joint Water Quality Monitoring Sampling Points for the SOJ. (w.e.f. Jul 06)

Stn No	Sampling Co-ordinates	
	Latitude (N)	Longitude (E)
SJ1	1° 25' 17.35"	103° 59' 55.66"
SJ2	1° 25' 47.40"	103° 55' 46.08"
SJ3	1° 26' 37.35"	103° 52' 38.91"
SJ4	1° 28' 34.96"	103° 49' 16.38"
SJ4A	1° 28' 36.96"	103° 48' 15.30"
SJ5	1° 27' 18.48"	103° 46' 23.82"
SJ6	1° 27' 06.27"	103° 46' 01.83"
SJ7	1° 27' 26.94"	103° 42' 46.62"
SJ7A	1° 27' 33.48"	103° 43' 21.24"
SJ7B	1° 26' 57.78"	103° 45' 05.22"
SJ8	1° 25' 15.18"	103° 40' 10.62"
SJ8A	1° 26' 57.24"	103° 42' 03.84"
SJ9	1° 22' 35.94"	103° 38' 45.84"
SJ10	1° 20' 31.50"	103° 37' 44.34"
EM 4	1° 26' 25.63"	104° 03' 11.09"
EM5	1° 25' 42.30"	104° 04' 36.72"
EM6	1° 23' 19.20"	104° 05' 20.40"
EM7	1° 21' 26.80"	104° 04' 40.65"
WQ10	1° 19' 52.62"	104° 05' 39.57"
WM1	1° 20' 17.02"	103° 37' 36.29"

Annex 2: Water Quality Parameters Analysed under the Joint Seawater Monitoring Programme Effective 1 Jul 06

Physical

Temperature	Conductivity
Dissolved Oxygen	pH
Salinity	Turbidity
Total Suspended Solids	Colour
Secchi depth	

Chemical

Total Organic Carbon
Oil & Grease
Dissolved & Dispersed Petroleum Hydrocarbon
Ammoniacal-N
Total-Nitrogen
Total-Phosphorus
Chlorophyll-a

Metals

Arsenic	Lead
Cadmium	Nickel
Chromium	Mercury
Copper	Zinc

Biological

Total Coliform
Faecal Coliform
Zooplankton (copepod)

Water Quality Guideline Adopted for the Straits of Johor

Parameter	Guideline
Dissolved oxygen (mg/l)	5
Total Organic Carbon (mg/l)	10
Total Suspended Solids (mg/l)	50
Ammoniacal-N (mg/l)	0.9
Oil & Grease (mg/l)	1
Faecal coliform (counts per 100 ml)	1,000

Criteria for the Award of Points for the Water Quality Index

DO (mg/l)	TSS (mg/l)	TOC (mg/l)	O & G (mg/l)	Amm-N (mg/l)	FC counts per 100 ml	Points awarded
5 – 8	≤ 50	≤ 10	≤ 1	≤ 0.9	≤ 1,000	1
3 – < 5	>50, ≤300	> 10, ≤ 15	> 1, ≤ 5	> 0.9, ≤2.7	> 1,000 ≤5,000	2
< 3, > 8	> 300	> 15	> 5	> 2.7	> 5,000	3

Water Quality Descriptors Based on the Points Awarded

Points awarded	Water Quality Descriptor
6	Above Average (Good)
7 – 12	Average (Moderate)
> 12	Below Average (Poor)

**PROGRESS REPORT ON THE MONITORING OF ECOLOGY AND
MORPHOLOGY IN AND AROUND THE STRAITS OF JOHOR
(Malaysia Information Paper)**

INTRODUCTION

1. This paper is to update the progress on the monitoring of ecology and morphology in and around the Straits of Johor on the Malaysia side.

BACKGROUND

2. The 4th MSJCE Working Group Meeting in Putrajaya, Malaysia on 14 November 2005 agreed on the following principles for the monitoring of ecology and morphology in and around the Straits of Johor:-

- (i) Each country shall carry out its own ecology and morphology monitoring activities within its own territorial waters;
- (ii) The relevant information should be shared as appropriate between the two countries and reported to the MSJCE Working Group and the MSJCE;
- (iii) Each country should identify and engage its own experts for the ecology and morphology monitoring works. The particulars of these experts should be communicated to each other and the experts can be invited to observe each others' monitoring work; and
- (iv) Malaysia and Singapore agreed to provide information to each other on their methodology for ecological and morphological monitoring works.

3. Both Malaysia and Singapore have exchanged information on the experts and references on their methodology for the ecology monitoring works, and shared progress updates at previous MSJCE Working Group Meetings. On 14 December 2007, Malaysia has taken the first action to host a one-day study visit to Sungai Santi mangrove area for the Singapore delegation of five experts led by Dr. Nigel Goh from (National Parks Board, Singapore). The Singapore experts were briefed on the mangrove ecosystem and terrestrial fauna of Sg. Santi and Sg. Belungkor Forest Reserves. Following that, on 1 December 2009, Singapore hosted a visit to the Sungei Buloh Wetland Reserve for the Malaysian experts.

4. In the spirit of sharing appropriate information between the two countries on the monitoring, Malaysia would like to share some updates on the ecological and morphological monitoring activities to be carried out in the Straits of Johor on the Malaysia side.

MONITORING OF ECOLOGY

5. Malaysia continues to monitor the ecology in and around the Straits of Johor covering the following scopes:-

- (i) Ecosystem changes; and
- (ii) Socio-economic impacts to the fishing communities.

MONITORING OF MORPHOLOGY

6. The monitoring on morphology parameters in and around the Straits of Johor is on-going with bathymetric surveys being conducted by the National Hydrographic Centre, Malaysia.

7. Malaysia is currently conducting bathymetric survey from Causeway to Sungai Melayu in the Straits of Johor.

JOINT EMERGENCY RESPONSE PLAN FOR CHEMICAL SPILL AT MALAYSIA-SINGAPORE SECOND CROSSING

(Malaysia-Singapore Joint Information Paper)

Introduction

Following the opening of the Second Crossing on 2 Jan 1998 which provided an alternative route for the road transportation of hazardous chemicals between the two countries, the Malaysia-Singapore Joint Committee on the Environment (MSJCE) have agreed that road transportation of hazardous chemicals to be restricted to the Second Crossing for safety reasons.

2 The hazardous chemicals transported by road between Malaysia and Singapore include phenol, formaldehyde, toluene diisocyanate, ammonia, acids, alkali, etc. The total quantities of hazardous chemicals moved between the two countries are estimated at about 110,000 tonnes per year.

3 Restricting transportation of hazardous chemicals to the Tuas Second Crossing has prevented road tankers and trucks carrying hazardous chemicals from passing through congested and populated areas in Johor Bahru and Woodlands.

Joint Emergency Response Plan (ERP) for the Second Crossing

4 As per directive from MSJCE, the Department of Environment (DOE), Johor and the National Environment Agency (NEA) have jointly developed an Emergency Response Plan (ERP) to deal with incidents

involving transportation of hazardous chemicals on the Second Crossing. The objectives of the ERP are to:-

- (a) establish a notification procedure to allow an early alert by the two countries on any incident involving release of hazardous chemicals occurring at the 2nd Crossing; and
- (b) establish a response procedure to facilitate and co-ordinate emergency response actions by the agencies of both countries to control and mitigate an incident of spillage or release of chemicals occurring at the 2nd Crossing.

5 MSJCE had endorsed the ERP and agreed that regular joint field exercises be conducted to determine its effectiveness as well as the preparedness of the various agencies from Malaysia and Singapore during an emergency.

6 To date, ten exercises have been conducted and they are as follows:

- (i) 22 Mar 2000, organised by DOE(Johor)
- (ii) 10 May 2001, organised by PCD(NEA)
- (iii) 19 Dec 2002, organised by DOE(Johor)
- (iv) 19 Feb 2004, organised by PCD(NEA)
- (v) 10 Apr 2006, organised by DOE(Johor)
- (vi) 2 Apr 2008, organised by PCD(NEA)
- (vii) 2 Dec 2009, organised by DOE(Johor)
- (viii) 28 Jul 2011, organised by PCD(NEA)
- (ix) 29 Oct 2013, organised by DOE(Johor)
- (x) 14 May 2015, organised by PCD(NEA)

Tenth Joint Response Exercise

7 NEA(PCD) organised the 10th joint field exercise on 14 May 2015. The exercise simulated an accident involving the collision of an ammonium hydroxide isotanker, a mini tour bus, a lorry carrying hydrochloric acid drums and a car. The collision between the isotanker and the mini tour bus resulted in the spillage of ammonium hydroxide onto the road. This in turn caused a secondary accident involving a lorry and a car. Drums of hydrochloric acid rolled off the lorry and some fell overboard into the sea. The drums were leaking profusely and this resulted in the spread of acid flumes around the incident area. Prior to the field exercise, a table top exercise was conducted on 29 Jan 2015 at ICA Tuas Admin Building and a joint site recce/ walkthrough was conducted on 12 May 2015.

8 The field exercise proceeded smoothly, with agencies from both sides responding promptly and effectively to deal with the simulated chemical spill incident. There were a total of 325 personnel from 15 Malaysian agencies and 166 personnel from 6 Singapore agencies who participated in the 2015 exercise. Mr Ronnie Tay, Chief Executive Officer, National Environment Agency, and Y. Bhg Dato' Halimah Hassan, Director General, Department of Environment, were also present as the Guests of Honour for Singapore and Malaysia respectively.

9 A joint post mortem meeting will be conducted in early June 2015 to review and discuss the lessons learnt from the conducted exercise.

PROPOSAL FOR JOINT MECHANISM IMPLEMENTATION FOR CONTROL OF ILLEGAL TANKER DESLUDGING

1.0 INTRODUCTION

Marine pollution has become an alarming issue particularly due to the ever increasing shipping activities in the Straits of Malacca and Singapore. Pollution mainly due to illegal discharges from ships consists of desludging activities contribute to the tarball and oily wastes sightings in Malaysia and Singapore. Thus, this paper is to propose Joint Mechanism activities to curb marine pollution due to illegal desludging activities along the Straits of Malacca and Singapore.

2.0 SCOPE

Malaysia-Singapore Joint Mechanism Implementation for Control of Illegal Tanker Desludging formulation is to control the illegal tanker activities within from Tanjung Piai to Pengerang, Johor, Malaysia.

3.0 OBJECTIVE

The purpose of the Joint Mechanism is to provide means/ guide for managing illegal tanker desludging activities based on the following factor:

- i. To enhance surveillance against illegal tanker desludging and disposal of tanker sludge.
- ii. To ensure coordinated efforts via information sharing between Malaysia and Singapore in controlling illegal tanker desludging activities that contributes to oil pollution in waters of both countries.
- iii. To protect the environmentally sensitive areas of both countries.

4.0 METHOD OF IMPLEMENTATION

4.1 National Focal Point

4.1.1 Malaysia and Singapore shall appoint their respective National Focal Point where applicable for receiving and dissemination of information pertaining to desludging activities by the vessel that need assistant from their counterpart.

4.1.2 National Focal Point for Malaysia shall be Department of Environment Johor and National Focal Point for Singapore shall be National Environment Agency from Singapore. The list of contact persons, addresses and contact numbers e.g. telephone, fax and email is at **Annex 1**.

4.2 Roles of National Focal Point (NFP)

The roles of the **NFP** are as follows:

- i. To coordinate and expedite the flow of information between both parties.
- ii. To maintain a list of licensed sludge disposal facilities and/ or transporter as in **Annex 2**;
- iii. Both States need to be informed of any changes of particulars as in **Annex 1 and Annex 2** to the counterpart;

4.3 Communication and Reporting

4.3.1 Operators of tankers shall be required to furnish documents or declaration or the transporter certificate to prove that tanker sludge has been received by an approved facility for treatment and disposal;

4.3.2 NFP from either State shall immediately inform the other member State if any tankers failed to present such documents and the information to be given is as per **Annex 3**.

4.4 Approved Designated Areas

4.4.1 Desludging activities shall be conducted after receiving approval from Marine Department of Malaysia at coordinated area as below:

- i. A: 01° 19.70'N 104° 07.35'E
- ii. B: 01° 19.20'N 104° 07.10'E
- iii. C: 01° 18.70'N 104° 07.70'E
- iv. D: 01° 19.50'N 104° 08.30'E

4.5 Control of Entry of Unclean Tankers for Repairs

4.5.1 The master or agent of a tanker shall declare that the tanker is in an unclean condition when it proceeds to a shipyard for repair;

4.5.2 The NFP or marine/port authority shall grant approval to the tanker to carry out tanker desludging activity in its waters.

4.5.3 The master or agent of the tanker shall obtain a sludge disposal certificate from the approved facility and submit it to the NFP or marine/port authority prior to leaving the shipyard.

5.0 DETENTION OF TANKERS FOR MARINE POLLUTION OFFENCES

5.1 Malaysia and Singapore Authority shall detain a tanker if it were caught carrying out desludging activities without a permit or illegal dumping of tanker sludge. The tanker contractors/owners/masters/operators may also be prosecuted under the respective environmental laws of the country.

5.2 Where necessary, Malaysia and Singapore Authority shall render their assistance to each other in the investigation of possible breaches of MARPOL provisions and guidelines. The assisting member state shall inspect the vessel if it is in its jurisdiction, and furnish the requesting member state with a report, if requested to do so.

6.0 FINGER PRINTING AND FORENSIC

6.1 Malaysia and Singapore shall share the use of DNA profiling or finger printing as a tool to determine pollution sources from ships through the joint mechanism.

LIST OF NATIONAL / ALTERNATE COMPETENT AUTHORITY

Country	NCA
Malaysia	<p>Department of Environment Ministry of Natural Resources and Environment Level 1-4, Podium 2 & 3, Wisma Sumber Asli No.25, Persiaran Perdana, Precinct 4 62574 Putrajaya, Malaysia Tel: 603-8871 2000 / 2200 Fax: 603-8889 1973 / 75</p> <p>Contact Persons: Dato' Halimah Hassan; hhh@doe.gov.my Dr. Zulkifli Abdul Rahman; zar@doe.gov.my Mr Wan Abdul Latif Wan Jafar; walj@doe.gov.my Mr. Khiruddin Mohd. Idris; kmi@doe.gov.my</p> <p>Department Of Environment Johor Level 1-2 Bangunan Hasil Jalan Padi Emas 1 Bandar Baru Uda 81200 Johor Bahru Tel: 607-2356041 Fax:607-2356071</p> <p>Contacts Persons; Mr Mokthar Abdul Majid; mam@doe.gov.my Mr Rosli Osman; ro@doe.gov.my</p>
Singapore	<p>Pollution Control Department National Environment Agency 12th Storey, Environment Building 40 Scotts Road Singapore 228231 Fax:65- 67319651/65- 68362294 Tel: 65- 67319615 Tel: 65- 67319203</p>

Tel: 65- 67319642

Contact Persons:

Fong Peng Keong, Fong_Peng_Keong@nea.gov.sg

Koh Min Ee; Koh_Min_Ee@nea.gov.sg

Pierre Ng; Pierre_Ng@nea.gov.sg

Quek Yong Seng; Quek_Yong_Seng@nea.gov.sg

LIST OF APPROVED SLUDGE RECEPTION AND DISPOSAL FACILITY

Country	NCA
Malaysia	<p><u>Licensed Sludge receptors:</u></p> <ul style="list-style-type: none"> • KB Enviro Sdn Bhd (Kotor Bina Sdn Bhd) Lot PTD 2288 HS(D) 15332 Telok Kelok, Mukim Pantai Timur Kota Tinggi Johor Tel: 603-21632800 Fax: 603-21626800 • Techno Indah Sdn. Bhd PLO 3, Pasir Gudang Industrial Estate 81707 Pasir Gudang Johor Tel: 607-259 2891 Fax: 607-2525726 <p><u>Licensed Disposal Facility:</u></p> <ul style="list-style-type: none"> • Kualiti Alam Sdn Bhd Lot H.S.(D) 20487 P.T. 3292 Ladang Tanah merah A3 Division Mukin Jimah, Port Dickson Negeri Sembilan Tel: 606-6662000 Fax: 606-6662010
Singapore	<ul style="list-style-type: none"> • Singaport Cleanseas Pte Ltd Pulau Sebarok Singapore Tel: 62755868 • NSL Oilchem Services Pte Ltd 23 Tanjong Kling Road Singapore 628094 Tel: 62654322

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REPORTING FORMAT

A. Information on Suspected Vessel

1. Date and Time
2. Name of Maritime Terminal/ Maritime Facilities
3. Position
4. Name of Ship
5. Type of Ship
6. Port of Registry
7. IMO Number
8. Flag Ship
9. Port of Destination
10. Name of Master
11. Original Port Departure and Date of Sailing
12. Type of cargo

B. List of Document for Inspection Requirement

1. Ship's register
2. Official log book
3. Port log, log abstract and cargo log book
4. Data logger print-out
5. Oil record book
6. Planned maintenance schedules
7. Repair requisition records
8. Articles of Agreement
9. Ship reporting records
10. Voyage plan

ANNEX 8

COLLABORATION BETWEEN ENVIRONMENT INSTITUTE OF MALAYSIA (E/MAS) AND SINGAPORE ENVIRONMENT INSTITUTE (SEI) (Joint Malaysia-Singapore Information Paper)

1 Introduction

This paper aims to inform the Working Group meeting on the progress of the cooperation in environmental training between the Environment Institute of Malaysia (E/MAS) and Singapore Environment Institute (SEI).

2 Collaborative Training / Programmes

EiMAS

- 2.1 To date, EiMAS has received 14 NEA officials for its training programmes in the areas such as:
- Environmental Management and Pollution Control organised under the Malaysian Technical Cooperation Programme (MTCP);
 - Environmental Impact Assessment; and
 - Environmental Enforcement and Compliance Monitoring.

SEI

- 2.2 To date, SEI has received 18 DOE officers for its training and attachment programmes in areas such as:
- USEPA Stack Emissions Sampling;
 - Earth Control Measures;
 - Control of Toxic and Hazardous Waste;
 - Control of Vehicular Emissions; and
 - Incineration Technology and System Design.
- 2.3 Besides the series of attachment programmes, SEI had also conducted a joint training programme with EiMAS on “Haze and Peatland Management” for the ASEAN countries under the Regional Haze Training Network (RHTN) framework in May 2012. Malaysia sent 2 officers from DOE and 1 officer from the Meteorological Department as participants cum trainers for the 3-day training programme.
- 2.4 And since 2003, SEI has received **34** Malaysian government officials for its international environmental training programmes, conducted under the auspices of MFA’s Singapore Cooperation Programme Training Award (SCPTA) initiative.

2.5 SEI plans to invite Malaysia through EMAS for the following SCPTA programmes scheduled for July 2015:

- a) SCPTA/SIDSTEC on Climate Change and Emission Reduction
(20 – 24 Jul 2015)
- b) SCPTA/SIDSTEC on Environmental Protection and Management
(27 – 31 Jul 2015)

3 Closing

3.1 Both EiMAS and SEI would continue to collaborate in environmental management training programs. Such joint training initiatives will help officials from both organizations better appreciate and understand the challenges and issues faced by both countries. In addition, the resultant knowledge and good practices derived from the learning exchanges will certainly bring potential environmental benefits to both countries.

ANNEX 9

COMPLAINTS ON SMELL (PROPOSED PROCEDURE FOR NOTIFICATION AND MUTUAL ASSISTANCE FOR SMELL NUISANCE INCIDENTS)

1 OBJECTIVE

To coordinate the procedure between Malaysia and Singapore in the investigation and handling of transboundary smell nuisances within both countries.

2 CONTACT POINTS

Malaysia	Singapore
Department of Environment, Johor Tingkat 1 & 2 Bangunan Hasil, Jalan Padi Emas 1 Bandar Baru Uda, 81200, Johor Bahru Tel: (607)-235 6041 Fax: (607)-235 6071 / (607)-235 6051	Pollution Control Department National Environment Agency 12 th Storey Environment Building 40 Scotts Road Singapore 228231 Tel: (65) 6731 9654 Fax: (65) 6731 9651
List and contact numbers of officers are at Annex 1 .	List and contact numbers of officers are at Annex 2 .

Roles of Contact Points

To co-ordinate with the other contact points to investigate the source of the smell nuisance.

3 PROCEDURE

When a Party receives numerous feedback on smell nuisance form the public, its officers will be deployed to identify the type of smell and locate the possible sources.

If initial assessment indicates the source of smell originating from a neighbouring country, the following actions will be taken:

- i) Contact shall be established with the neighbouring country. Contact points are listed in Annex 1 and 2;
- ii) Details on available meteorological data, description of smell and any other relevant information are to be shared with neighbouring country to provide a basis for further investigation by neighbouring country;
- iii) Investigation to be carried out by both parties in the area under their respective jurisdictions based on the information provided; and

- iv) Updates and outcome of investigation shared between both countries.

ANNEX 1

Details of Contact Points (Malaysia)

S/N	Name	Organisation	Contact Number	Email
1	Mr Mokhtar Abdul Majid	Department of Environment Johor	(607)-2356 041	mam@doe.gov.my
2	Ms Azuri Azizah	Department of Environment Johor	(60)-122 142 403	aas@doe.gov.my
3	DOE Duty Officer	Department of Environment Johor	(607)-2366 528	-

ANNEX 2

Details of Contact Points (Singapore)

S/N	Name	Organisation	Contact Number	Email
1	Mr Fong Peng Keong	Pollution Control Department (PCD) National Environment Agency (NEA)	(65)-9842 3182	fong_peng_keong@nea.gov.sg
2	Mr Jothieswaran P	PCD, NEA	(65)-9615 5186	iothieswaran_poobala_singam@nea.gov.sg
3	PCD Duty Officer	PCD, NEA	(65)-9719 8404 / (65)-9719 8405	-