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UNIVERSITI SAINS MALAYSIA

Peperiksaan Semester Kedua  
Sidang Akademik 2003/2004  
Februari/Mac 2004

**IEK 209 – SISTEM PERUNDANGAN PERSEKITARAN,  
KESIHATAN & KESELAMATAN**

Masa : 3 jam

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Sila pastikan bahawa kertas soalan ini mengandungi ENAM mukasurat yang bercetak sebelum anda memulakan peperiksaan ini.

Jawab LIMA (5) soalan. Semua soalan mesti dijawab dalam Bahasa Malaysia.

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1. Berdasarkan artikel 1 di bawah, nyatakan kesemua perundangan dan peraturan yang terlibat.

Artikel 1

The hot oil spill at the Amoco petrochemical company in Gebeng industrial estate more than a week ago has been contained and neutralised.

A Pahang Department of Environment spokesman said he was happy with the clean-up operations conducted by the company, which had been told to submit status reports from time to time.

“Although the oil had flowed into a nearby river, Sungai Tunggak, the situation is under control and not alarming,” he said yesterday.

In the Jan 26 incident, hot oil and steam were accidentally discharged and as it was raining at the time, some of the oil was washed into the plant’s sewers and the river.

The company, with the aid of the DOE, Fire and Rescue Department and police, managed to prevent the oil from spreading to other parts of the river.

After taking other preventive measures, the company’s assessment was that there was minimal environmental impact on the river.

However, the DOE was still conducting tests on the river water to ensure that there was no adverse environmental effect.

(20 markah)

2. Berdasarkan artikel 2 di bawah, nyatakan kesemua perundangan dan peraturan yang terlibat.

Artikel 2

Fifty-five people, mainly students from three schools in Guar Chempedak, near here, were rushed to a nearby clinic and hospitals after inhaling ammonia released from a Petronas fertiliser plant here yesterday morning.

The students, aged between seven and 17, were from SK Guar Chempedak, SK Hussin Dol and SM Langkasuka, located about 2 km from the plant, and the others, adults, living in the vicinity.

...3/-

They suffered breathing difficulties, nausea and vomiting when the incident happened about 9.30 am.

Two pupils, both 12, a boy from SK Husin Dol and a girl from Sk Guar Chempedak Satu, were admitted at the Yan and Sungai Petani Hospitals respectively.

A 53-year old woman, working in a stall in Guar Chempedak, was admitted at the Yan Hospital.

All of them were reported to be in stable condition and are expected to be discharged today.

The others were given out-patient treatment at Guar Chempedak clinic and Yan Hospital.

A spokesman from the Guar Chempedak clinic said 55 people, mainly students, were brought to the clinic from 11.30 am with breathing difficulties, giddiness, vomiting and nausea but recovered within minutes.

Yan Hospital director Dr. Zainal Abidin Abdul Kadir said the hospital handled 16 people, including 12 students, who complained of giddiness and nausea after they were believed to have inhaled the ammonia.

According to a spokesman from the Sungai Petani Hospital, the 12-year-old girl from Sekolah Guar Chempedak who was admitted yesterday was in stable condition.

Petronas Fertiliser (Kedah) Sdn Bhd in a statement said small volume of ammonia was released to the atmosphere from its plant in Gurun early yesterday morning.

The statement said under normal weather conditions, the amount released would have dispersed in the atmosphere but due to unusual wind conditions, it drifted to an area where SK Guar Chempedak was located.

“Our assessment indicated the ammonia has fully dissipated and no longer poses any risk of exposure to the public,” said assuring that the plant operating procedures were based on industry best practices and were in compliance to all legal requirements.

(20 markah)

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3. Berdasarkan kandungan artikel 3, nyatakan kesemua perundangan dan peraturan yang terlibat.

Artikel 3

A 200-litre drum containing aldehyde, a chemical with a level One toxicity, was found leaking in one of the freight forwarder's cargo area in Bayan Lepas yesterday.

State Fire and Rescue Department deputy director Azmi Tamat said about 50 litres of the inflammable chemical had leaked out from a 6 cm hole in the drum when they arrived.

"Several workers were transporting the 14 drums containing the chemical when one of them reported a strong smell. We were called in at 10 am when a check revealed that a drum was leaking.

"The drums were subsequently taken outside the premises. The spillage had since been washed away by the 22 firemen, including a 12-man Hazardous Materials team which was at the scene."

Azmi said the sealed drum would be handed over to the Department of Environment (DOE) for disposal.

He said the DOE had found a company to dispose the chemical and the freight forwarder would bear whatever cost incurred in the disposal.

It is learnt that the drum had been leaking prior to its arrival at the cargo area from the United States as the overpowering smell was also present in the aircraft.

The hole was believed to have been caused by repeated knocks against a hard object during the flight here. The Singapore-bound drums were about to be loaded onto another aircraft when the leakage was discovered.

Aldehyde, a clear pale liquid, is mainly used as a fuel additive. The chemical is also used as an intermediate for antihistamines, flavouring the electroplating.

(20 markah)

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4. Berdasarkan artikel 4(a) dan (b), apakah kesalahan perundangan yang terlibat? Berikan kesemua kewajipan majikan dan pekerja dibawah perundangan ini.

Artikel 4(a)

The National Institute of Occupational Safety and Health (Niosh) has urged employers not to neglect work-related safety and health programmes despite the current economic slowdown.

Its chairman Datuk Lee Lam Thye said any cost-cutting measure instituted by employers must not neglect the workers' safety and health at the work site.

Lee said he feared employers may slash their annual budgets for work-related safety and health programmes.

He was commenting on Human Resources Minister Datuk Lim Ah Lek's statement on Tuesday which said Socso may have to pay RM5bil in compensation by 2020.

The minister said this was likely if the number of serious work-related accidents continue to increase at the present rate.

"To cut down on Socso compensation, employers and workers must show greater commitment to occupational health and safety issues," Lee said.

He said despite various programmes to reduce work-related accidents for several years, the number of fatalities have almost doubled since 1993.

In 1993, there were 795 work-related deaths whereas there were 1,478 deaths last year.

Housing Development Association (HDA) president Eddy Chen said a serious re-examination of the work culture in Malaysia should be carried out.

"There is a price to be paid if we don't rigidly follow the rules concerning safety at the work sites," he said.

"People seem to be more deadline conscious than safety conscious," Chen said.

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Artikel 4(b)

Two construction workers were buried alive yesterday while digging a trench for a sewage pipe in a construction project.

Malacca OCPD Supt. Mohd Noor Masdar said the victims were Ho Ban Chin, 48, of Taman Bachang Baru, and Indonesian Samujianto Tukiran, 34.

The two were among a five-man team carrying out earthworks for the laying of sewage pipes for the Kolej Islam Melaka campus in Kuala Sungai Baru when the incident occurred at 11 am.

Supt. Mohd Noor said three workers were digging the 2.5 m deep and 1.5 m wide trench.

“The earth which was placed on top suddenly caved in and covered the two workers,” he said.

“The two were already dead when the other workers dug them out with their bare hands,” he said.

(20 markah)

5. Berikan maksud USECCH dan kesemua peraturan dibawahnya.

(20 markah)

6. (a) Apakah Kebenaran Bertulis dan syarat yang perlu disertakan untuk memenuhi permohonan ini?

(8 markah)

- (b) Bilakah Kebenaran Bertulis diperlukan?

(2 markah)

- (c) Berikan LIMA (5) syarat-syarat kelulusan Kebenaran Bertulis untuk sistem rawatan air kumbah.

(10 markah)

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