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15 March 2010

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Dear Adrian

Interim advice Re: SEPP 33 screening test (Dangerous Goods) for BIGW RDC Hoxton, NSW.

Thank you again for the opportunity to conduct a SEPP 33 screening test assessment for the BIGW Regional Distribution Centre located at Hoxton Park, New South Wales. Results of AECOM's assessment has identified that the quantity of onsite storage of **CLASS 6.1 (Toxic Substances)** dangerous goods (4500 kg) has exceeded the trigger value (2500 kg) for these substances defined in the SEPP 33 Policy. This excess mandates that a Preliminary Hazard Assessment (PHA) is undertaken to confirm that the associated risk can be managed .

Details

During the SEPP 33 screening assessment, AECOM has reviewed all dangerous goods and the quantities (weights and volumes) which they are to be stored at the BIG W RDC facility, as supplied by the proponent. Based on AECOM's experience, a "packaging to dangerous goods ratio" was applied to all dangerous goods classes to enable a realistic estimate of actual dangerous goods stored onsite to be calculated (see attachment). This approach resulted in a reduction of the overall gross weight of products stored onsite. The benefit of this approach is that gross packaging weights are not included in dangerous goods quantities and therefore reduces the likelihood that trigger values are 'falsely exceeded'. For example, in AECOM's experience, 50% of the total weight of a carton of aerosol cans (i.e. an order_multiple) is contributed to by tertiary and secondary packaging, the cans along with plastic lids and the aerosol delivery systems. Taking this into account, the gross weight of 27,800 kg of aerosols stored onsite has been reduced to 13,900 kg, which is a significant reduction in weight and therefore significantly reducing the probability of exceeding trigger values. Following this approach, **excluding Class 6 dangerous goods**, no other dangerous goods classes exceed screening thresholds based on the current SEPP 33 policy guidelines.

Further to the approach described above, given that aerosols are made up of a number of dangerous goods classes, the following scenarios were used during calculations:

a) Where an item was listed as Class 2.1, weight calculations were based on the assumption that the full content of the package (i.e. 50% of gross weight) was Class 2.1 and
b) When an item was listed as a Class 2.1, calculations were based on 30% Class 2.1 goods and 70% Class 3 dangerous goods. Thirty percent was selected after a review of a random selection of MSDS for the products supplied by the proponent suggested that this level was a conservative estimate of propellant contained in each product.

Neither of the above approaches resulted in the SEPP 33 threshold being exceeded.

Based on AECOM's approach, Class 6.1 materials were the only DG Class which exceeded trigger values. Using scenario a) approach as described above, Class 2.1 materials (13,900kg) triggered the SEPP 33 screening threshold level (5000 kg) which requires an assessment against Figure 6 in the SEPP 33 document. Figure 6 documents how far the storage facility must be located away from the site boundary. At 14.8m, the current quantity of Class 2.1 products onsite does not trigger any further assessment. The full results (in hand calculation form) of AECOM's assessment are attached. Please note that although transport screening thresholds should be reviewed as described in the SEPP 33 policy, AECOM does not currently hold information to undertake this component of the screening process. As a PHA has been triggered, this information will be required for the PHA assessment.

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In undertaking this SEPP 33 assessment, AECOM has made the following assumptions:

a) Weight / volume / mass conversions are based on:
    a. 1 kilogram = 1 litre (eg 1 litre of typical Class 6.1 product, such as weed killer, weighs approximately the same as 1 litre of water)
    b. 1000 kilograms = 1 tonne
    c. 1 tonne of water = 1 m^3 of water
b) For Class 2.1 (aerosols), we have assumed, based on a random review of available MSDS's that the component of this dangerous good class is approximately 30%
    a. All Class 2 goods as supplied by the proponent in the manifest are Class 2.1
c) Packaging weight to dangerous goods weights across different DG classes have been based on the assumption that at least 75% of the total product weight is dangerous goods. Different percentages across classes are based on AECOM's experience
d) Information supplied by the proponent about the quantity of dangerous goods held onsite is true and accurate.

In conclusion, this assessment has identified that a PHA is required to be undertaken for the BIG W regional distribution centre located at Hoxton Park, NSW. The requirement has been triggered due to the quantity (4,500 kg) of Class 6 dangerous goods which are stored onsite exceeding the SEPP 33 threshold amount (2,500 kg).

Yours faithfully

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encl: Attachment

Reviewed :

Frank Mendham - MAIDGC

15/3/10.

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Job Title	Big W Hoxton Pk Sept 13		
Job No.		Calculation No.	
Originator	Danny Ward	Date	15/3/10.
Reviewer	Frank Mindham	Date	15/3/10
Scale		Sheet No.	1 of 1

DG Assessment – Screening Test 1 – Storage of DG

(Assumptions)

* Distance to Boundary from DG store = 12 m.
* Two (2) possible scenarios/options are assumed wrt aerosols.
  a) If stated 2.1, then full content of package is 2.1 OR
  b) 30 % of package is 2.1, 70% is Class 3 DG.

DG Class	DG/Packing Ratio	SOH Wgt kg.	DG Wgt/Vol Calculated	Screen Thresh or GRAPH DISTANCE	Compliance Comment
4.1 II	85 : 15	168	143	1000	OK. ✓
4.1 III	85 : 15	200	170	1000	OK ✓
5.1 III	90 : 10	65	59	5000	OK ✓
6.1 (b)	75 : 25	60010	4500	2500	Exceeds T'Hold X.
8 II	85 : 15	2400	2040	25,000	OK ✓
3	90 : 10	1350	1,215	2000	OK ✓
Scenario (a)					
2.1	50 : 50	27,800	13,900	5,000	Exceeds T'Hold ✓ but OK BY GRAPH @ 12m
					✓
	As above				✓
					✓
6.1 (b)	75 : 25	6000	4500	2500	Exceeds T'Hold X
					✓
Scenario (b)	(30 % Class 2.1 plus 70% Class 3)				
2.1	50 : 50	27,800	4,170 }	5000	OK ✓
3	→		9,730 }	2000	Exceeds T'Hold
			(+ 1,215 (from above))		but OK, By GRAPH @ 12 m ✓
			10,945 DG		

15/3/10.

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Dear Adrian

Interim advice on SEPP 33 screening test (Dangerous Goods) for Dick Smith RDC Hoxton Park, NSW.

Thank you again for the opportunity to conduct a SEPP 33 screening test assessment for the Dick Smith Regional Distribution Centre (RDC) located at Hoxton Park, New South Wales.

Given the information which was supplied to us, AECOM's opinion is that the quantities of dangerous goods which will be stored on site at the Dick Smith facility would not exceed SEPP33 threshold levels for Class 2 or Class 3 dangerous goods.

In undertaking this SEPP 33 assessment, AECOM has made the following assumptions:

a) Weight / volume / mass conversions are based on:
   a. 1 kilogram = 1 litre (eg 1 litre of typical Class 6.1 product, such as weed killer, weighs approximately the same as 1 litre of water)
   b. 1000 kilograms = 1 tonne
   c. 1 tonne of water = 1 m^3 of water
b) The ratio of packaging weight to dangerous goods weights across different DG classes have been based on the assumption that at least 75% of the total product weight is dangerous goods.
c) Information supplied by the proponent about the quantity of dangerous goods held onsite is true and accurate.

This assessment has identified that a Preliminary Hazard Assessment (PHA) is not required to be undertaken for the Dick Smith regional distribution centre located at Hoxton Park NSW in relation to the stored quantity of dangerous goods under the SEPP 33 screening test.

In relation to the SEPP 33 screening test for transportation, AECOM does not have information that would allow this assessment to be carried out at this time.

In conclusion, indications are that a PHA is not required for the Dick Smith Facility at Hoxton Park.

Please feel free to contact the undersigned for further clarification.

Reviewed :

Frank Mendham - MAIDGC

Yours faithfully

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