Markers Report: PCC OHP-01-2017 ROH Paper October 2017 (June 2017), Gauteng:

13 candidates attempted this Occupational Hygienist written paper. Only 4 passed and 9 failed (Pass rate – 31%).

Section 1: 13 Candidates, 04 Passed (Pass rate – 31%)

1.1 Candidates all mentioned the hazards that can be expected in the process of removing asbestos from steam and gas piping. However, did not elaborate on the risk that may exist. They also did not mention any normal control measures that will not be viable in this work situation.

1.2 In general, the candidates must go back and study statistics 101. They do not have any knowledge on standard deviation or arhythmic mean.

1.3 Candidates should read up on ISO deposition conversions. This is dust exposure 101.

1.4 Dose: Please brush up on your toxicology, most candidates do not know what the term means and how to apply it.

1.5 Candidates need to study HBA's, specifically their source of contamination and way of exposure. Salmonella has nothing to do with Salmon fish.

1.6 More than half of the candidates did not understand the difference between static and velocity pressures. This is the first thing that should be learnt in ventilation.

Section 2: 13 Candidates, 01 Passed (Pass rate - 8%)

2.1 13 candidates, only 2 passed (Pass rate - 15%). It is unfortunate that only 2 of the candidates could get the respirable dust concentration calculations and evaluation correct. How to determine if a certain respirator with a given protection factor will be sufficient? Eisch! And calculating TWA, or 8-hour TWA!

2.2 Q=V x A (a given calculation), almost 50% of the candidates could not calculate quantity of air flow through the duct.

2.3 Only 3 candidates (out of 13) got the LReq8-hour calculation correct. You must first do the LReq10-hour calculation, then use this in the LReq8-hour equation. There were still some of the candidates that could not use the derating/attenuation of the HPD correctly.

Section 3: 13 Candidates, 04 passed (Pass rate - 31%)

3.1 More than 60% of the candidates passed this long question. The aim was to do a Health Risk Assessment on a specific task in a large mechanical engineering manufacturing process. The different tasks were listed and measurements of HCS's Noise, HAV, etc. were supplied

- Asked to discuss results;
- List health effects;
- Develop risk scores;
- Recommend controls for each stressor/risk;
- Describe medical surveillance test you would recommend here.

General mistakes the candidates made where the following, the above discussions, recommending unfeasible control measures, etc.

3.2 The scenario was spray-painting in a small panel beater concern. The candidates were asked to describe the health effects of HCS's and make detailed but feasible recommendations to reduce the exposure risk (Engineering, Administrative controls, PPE and Medical

surveillance). Only 5 candidates attempted this question, and all passed. There were still too many unfeasible control suggestions made and not enough detail in the health effects.

3.3 Legionella was found in water samples collected from workers shower facilities. The candidates where requested to draft a motivational letter to management, explaining the health risks, and recommendations, immediate and long term. 7 candidates attempted this question, only 2 passed. The problems here were: candidates did not write a letter, no motivation re benefits and legal requirements listed, few knew what Legionella is and how to effectively control it in the short and long-term.

3.4 Nobody attempted this question. Manual handling and Ergonomics.

3.5 Design and implement a silica monitory programme for a small Foundry. The candidates were asked to explain and supply the necessary detailed summary of the programme and what management and workforce inputs are needed. Almost 50% of the candidates failed this question. In most cases they only gave points on what constitutes a silica programme and not in the form that would motivate/convince management of the necessity and what they and the workers will need to do. No references made pointing out the positive motivation of such a Programme, etc.

3.6 A heat stress scenario was given. The candidates were asked to comment on the heat stress condition, give detailed control suggestions, health effects that may occur and PPE required for this and other stressors and how it may create additional problems. Only one candidate out of 4 passed this question. The common mistakes were: not following the instructions (as mentioned above), not writing an orderly report re. Legislative requirements, evaluation of situation, health effects, controls proposed (in that order). Salt intake as a control is a No-No!

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As submitted by the above.