Dr Hal @ ASE 2013

Methane mamba

Risk Assessment

Please note that this risk assessment was written to cover the demonstration of this experiment at the ASE Conference in January 2013. For any other use, this risk assessment should be reviewed to see whether there is a need to modify or adapt it in any way to suit the particular conditions under which the experiment will be carried out.

OCR

Risk Assessment: Professor Hal Sosabowski

Written By: **Professor Hal Sosabowski**	Location: University of Reading

Date Of Assessment: 30h October 2012

CATEGORY/ACTIVITY

RISK CATEGORY	DESCRIPTION OF ACTIVITY TO BE ASSESSED
Low	6th Jan 2013 **Methane Mamba**

HAZARDS

List hazards here. List only hazards which could reasonably be expected to result in significant harm under the conditions in your workplace.

Methane rattlesnake

This experiment involves Sosabowski/Campbell/Co presenters creating a column of methane foam using Radox solution and a methane gas cylinder. Gas is bubbled through plastic container containing Radox soap solution. A 'solid' column of methane soap will then rise up from plastic container. To prevent foam column from breaking off (and resembling snake appearance) a small amount of water is placed on top of column.
Dr. Sosabowski will then wet his hands, and take a handful of foam, and after wiping the underside of his hand, the base of the foam will be ignited with a taper. The foam will then spectacularly flare off, Dr. S. will be apparently unscathed..

Hazards:

1. Burns;
2. Ignition hazard from unused foam;
3. Ignition hazard for nearby combustibles.
4. Methane gas cylinder

WHO MAY BE HARMED

List here groups of people who are especially at risk from the hazards that you have identified.
You may list individuals but think of groups of people doing similar work

All operatives in vicinity of experiment/audience

RISK ASSESSMENT

List existing precautions & controls here or note where information can be found

General:
1. Demonstators hand(s) to be wet;
2. Undersides of hands to be wiped before ignition;
3. Methane foam to be made 'just-in-time' and excess discarded after use;
4. Dr. Sosabowski/Dave Campbell only demonstators.
5. Dr. Sosabowski to remove watch, jewellery, roll sleeves up;
6. All flammable materials to be removed from locality;
7. Meticulous rehearsal to take place with operators before main event.
8. Bucket of water nearby in case of burn to either operator;
9. Resident fire officer to be appraised;
10 Foam to be lit from the base so it flares up, away from the hand not down toward it.
11. Fire extinguishers available (Dome)
12. Methane cylinder provided by BOC. Methane gas regulator used, fitted and controlled by D. Campbell –trained in gas cylinder/gas regulator handling. Gas cylinder(s) to be held in safety stands. D. Campbell to oversee the storage and use of cylinders at all times.
DATA sheet to be available (with this assessment)

WHAT FURTHER ACTION IS NECESSARY
List all risks that are not adequately controlled and the action that you will take, where it is practicable, to do more

None

Have all necessary precautions and procedures been included in the assessment?	**Yes**

RESULT - T=Trivial Risk /A=Adequately controlled

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D. Campbell