

Image Cover Sheet

CLASSIFICATION

UNCLASSIFIED

SYSTEM NUMBER

139991



TITLE

COMPARISON OF THE PHYSIOLOGICAL ACTIVITY OF THE CLOUD FROM A NORMALLY
FUNCTIONED 3 LB. H THERMAL GENERATOR AND THE CLOUD FROM ONE WHICH INFLAMES

System Number:

Patron Number:

Requester:

Notes:

DSIS Use only:

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UNCLASSIFIED / UNLIMITED

EXPERIMENTAL STATION

COPY NO 41
31 December 1943

SUFFIELD ALBERTA

FIELD EXPERIMENT NO. 176

Comparison of the Physiological Activity of the Cloud from a normally functioned 3 lb. H Thermal Generator and the Cloud from one which inflames

1. OBJECT:

In Field Experiment 158, marked physiological effects were produced on observers by the cloud produced from a large number of inflaming H Thermal Generators. It is desired to know whether the vapour produced by a generator which inflames is as vesicant as that from a generator which functions without inflaming.

2. SITE:

Barn at C.P.R. Lake.

3. MATERIAL:

Four 3 lb. H Thermal Generators (2 spare).
12 observers fully protected, except for a window cut in the clothing of both arms to expose an area, two inches square, of bare skin.

4. PROCEDURE:

(a) Part I.

(i) Three sampling units each consisting of two injectors and two pairs of bubblers will be positioned in the barn at C.P.R. Lake as shown in the attached sketch. The bubblers will sample at 36 inches, one pair for the Chloramine T and one for the pyridine method of analysis. Each pair will be arranged for automatic change over.

(ii) Three observers will take up position one at each of the three sampling points, and at each point one chloramine T and one pyridine bubbler will be operated.

(iii) One generator, in the position shown in the sketch, will be lit (zero for the trial) and the door of the barn closed. The air in the barn will be fanned manually while the generator is functioning.

(iv) At zero plus three minutes the three observers will leave the barn and be replaced immediately by a further three and a change over will be made to the second of each pair of bubblers.

(v) At zero plus eight minutes these observers will leave the barn and the injectors will be turned off (Chem. S.).

(b) Part II

(i) The procedure will be as for Part I but the generator will be made to inflame.

5. The two parts of this trial are to be carried out on the same day, time being allowed between trials for the clearance of vapour from the barn.

Classification / Designation
Changed to / Remplacée par u/u
By Authority of C. Laforce
Sur l'Autorité de
Date 25 Feb 98 Signature D. Kessler
Appointé
Fonction

Field Experiment No. 176 (continued)

ADMINISTRATION

O. M.-& E. Provision of generators and port fires.

PHYS. S. Provision of observers. In charge of trial.

CHEM. S. Sampling.

HJF:REA

H.J. Fish

(H.J. Fish)

P.R.S.

Experimental Station

K. Birchall w/c

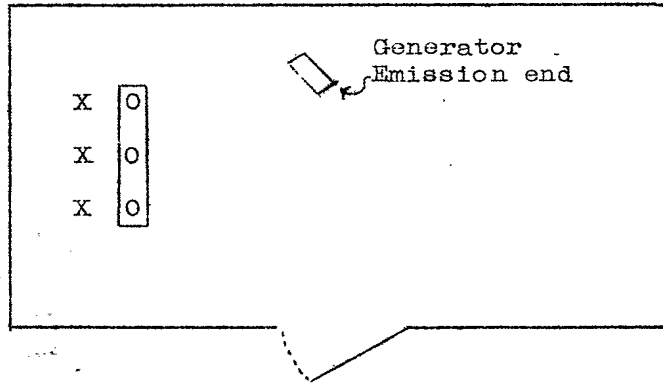
(K. Birchall) W/Cdr.

C.E.O.

Experimental Station

X = Observers

O = Sampling
points
(6 injectors
12 bubblers)



#139991

DEFENCE SCIENTIFIC INFORMATION SERVICE DEFENCE RESEARCH BOARD	
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