

SAFENIGHT TECHNOLOGY INC.

"the safer smoke detector network"

2121 Electric Road SW
Roanoke, Virginia 24018
(703) 989-5738

October 23, 1995

Ms. Michelle Burgess, Mechanical Engineer
United States Nuclear Regulatory Commission
#2 Wide Flint North
11555 Rockville Pike T-8f5
Rockville, MD 20852

Re: Distributor Inspection Controls

Dear Michelle:

We propose the following procedures to insure proper quality control on our distributor sampling:

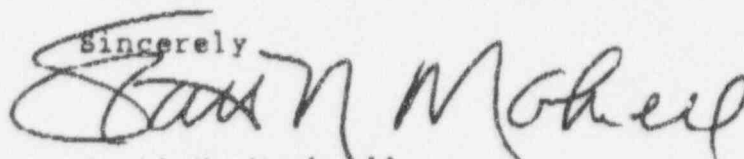
- 1) Our USA located subcontractor will record per log book results of the LTPD 5% sampling for:
 - a) removable containment ←
 - b) structural design conformity
 - c) labels conformity
 - d) point-of-purchase packaging conformity
- 2) A copy of the test results will be sent within one week to SafeNight Corporate headquarters in Roanoke, Virginia. They will be kept on file and available for inspection here.
- 3) We will be present during the initial inspection of goods for LTPD 5% sampling to insure procedures are in place and followed.
- 4) Within the first 6 months, we will audit in person the process to insure that it is occurring.

1/2

- 5) Assuming a successful process is in place, we will audit in person at least yearly after that inspection.

I hope this suffices. Thank you.

Sincerely

A handwritten signature in dark ink, appearing to read "Scott N. Markwell". The signature is fluid and cursive, with the first name "Scott" being more prominent and the last name "Markwell" following in a similar style.

Scott N. Markwell
President

SNM/ct

10/23 1030a left msg

10:40a he returned
the call

~~Need~~ to call

~~Scott~~ Scott Markwell, SafeNight 703 989 5738

- I need you for
- pls send: ① what info you will req from contractor
in test results reports
- ② the procedures that the contractor
will be req'd to follow.
- make sure you discuss reg'd licenses for possessing
the items during testing
- #2 - you must verify results are acceptable
then approve release of shipment before
the shipment can be distributed.
- #5 - since you will be having very little
contact with the shipments & considering
the numbers that are likely, should be
at least 6mo, preferably 3 month
intervals

"in accordance with the information & drawing submitted
in support of the registration certificate"

1
Susan Greene—

Please look at the QA/QC commitments made by SafeNight to make sure that they do not conflict with the license request changes that SafeNight was requesting.

Micheli Burgess

SAFENIGHT TECHNOLOGY INC.*"the safer smoke detector network"*

2121 Electric Road SW
Roanoke, Virginia 24018
(703) 989-5736

F A X T R A N S M I T T A L S H E E T

To: Ms. Michelle Burgess, Mechanical EngineerCompany: USNRCRegarding: Distributor proceduresNumber of pages (including this sheet) 3From: Scott N. Markwell

Doug,

7/17/95

Pls review. This sheet identifies all remaining issues I see. Pls review on the basis that if the points listed here are addressed by the licensee, then you would sign the certificate. Pls note especially the QC stuff.

SafeNight

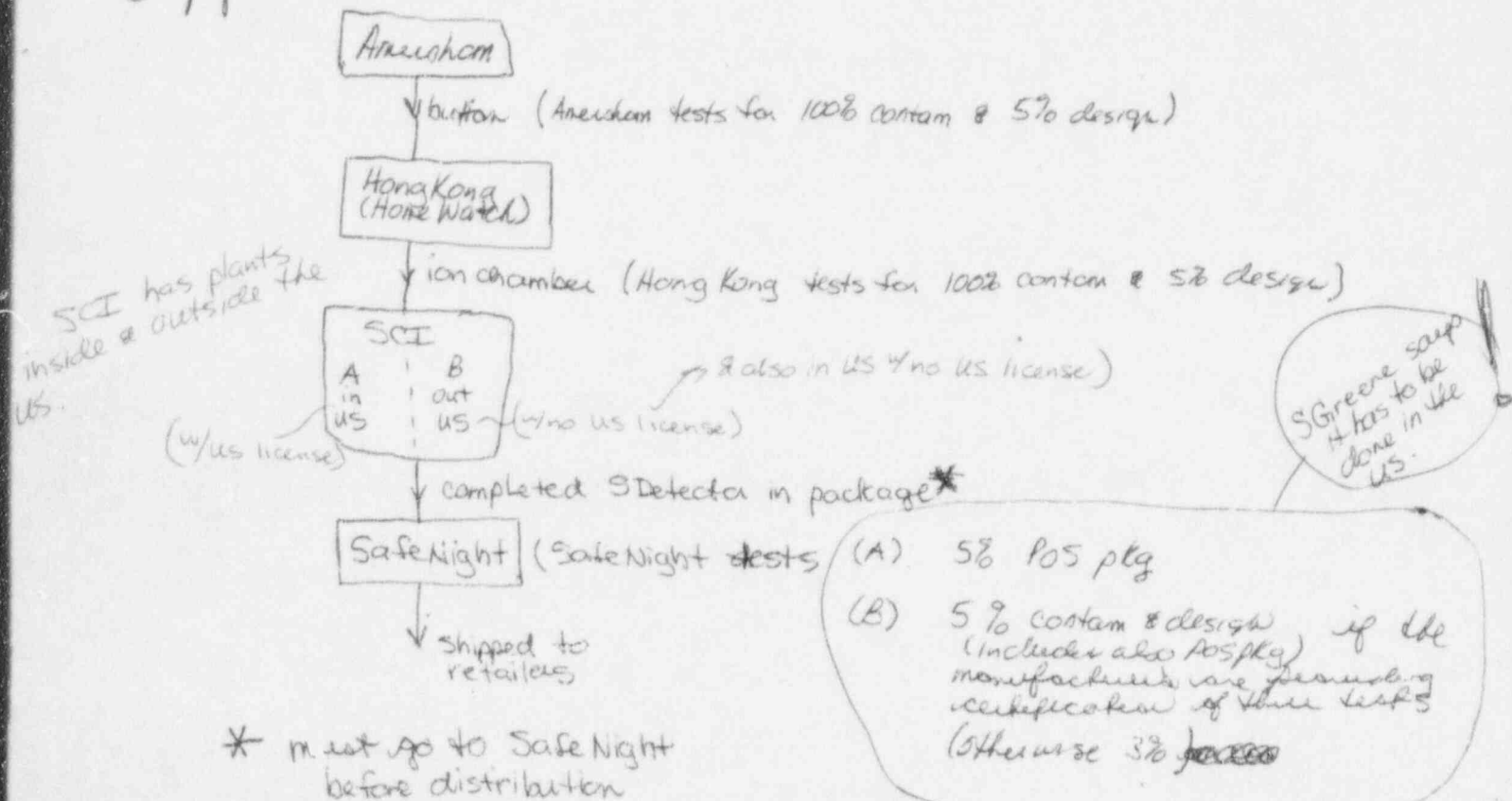
MLB

✓ Prototype Testing

- ① drop / impact OK? ✓
- ② vibration & temp - no tests listed - OK'd by SLB (thru Doug Tang)

QC

- ① include in Fig 3? (pg 8 of QA Plan)
- ② where does the text refer to App A? (pg 12 of QA Plan)
- ③ pls list where the units will be manufactured
if Mexico list that as Mexif
& SCI, AL as distributor
- ④ pgs 13-15



Labels

detector RAV AM 24/ 0.9 μ Ci ✓ Lec#/name ✓
Q have attached - samples

③ ¹⁴C B₂ in base

Dump

need Eng dump of ~~bottom~~ NED ✓ ② bottom Amestrom
① ion chamber design

need copy of materials supplied to user (manuals, etc)

5
2
2

Doug:

I have resolved what issues I think were left out by 9/26 ltr.

Two things:

① twist lock & soldered screw:

I thought it was OK. Will you go for it?

② statement on page 4 of the 9/26 ltr:

3)a) → that location must be an NRC licensee?
from what Susan G. has told me,

S. G. G. ~~is~~
looking on this.

10/18/95 ~~Scott~~ Markwell
will send info

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE

NO.: NR-xxx-D-101-E

DATE: July 31, 1995

PAGE 1 OF 2

DEVICE TYPE: Smoke Detector

MODEL: SN Series, PL Series

DISTRIBUTOR/MANUFACTURER:

SafeNight Technology Inc.
2121 Electric Road
Roanoke, Virginia 24018

SEALED SOURCE MODEL DESIGNATION:

NRD Model A001 (in a model
A-1056 holder)
Amersham Model AMM1001H source
and holder

ISOTOPE:

Americium 241

MAXIMUM ACTIVITY:

0.9 microcurie (33.3 kBq)

LEAK TEST FREQUENCY: Not Required

PRINCIPAL USE: (P) Ion Generators, Smoke Detectors

CUSTOM DEVICE: _____ YES _____ X _____ NO

REGISTRY OF RADIOACTIVE SEALED SOURCES AND DEVICES
SAFETY EVALUATION OF DEVICE

NO.: NR-xxx-D-101-E

DATE: July 31, 1995

PAGE 2 OF 2

DESCRIPTION:

The SN Series and PL Series are different marketing names for the same smoke detectors. All models in both series are identical in construction to the base model, SN-100, with the exception of differences in electronic components. All models in both series incorporate the same ionization chamber. All models are battery powered and can be interconnected with radio signals so that when one detector alarms, then all connected detectors will alarm. The source holder is crimped into a source cup which is recessed into a polypropylene lower chamber. The lower chamber is fastened to the printed circuit board (PCB) by means of a screw passing through the PCB and anchored at the bottom of the source cup. The cover of the ionization chamber is snapped around the lower chamber and screwed and soldered to provide enclosure of the source cup. The detector housing is about five and three-quarter inches (14.4 centimeters) in diameter with a height of about one and one-half inches (3.8 centimeters).

REFERENCES:

The following supporting documents for the smoke detector SN Series and PL Series are hereby incorporated by reference and are made part of this registry document:

- Sleepsafe Corporation's application dated July 28, 1994, with enclosures thereto.
- SafeNight Technology Inc.'s letter dated ^{September 26, 1995} March 13, 1995, with enclosures thereto.
- SafeNight Technology Inc.'s ^{facsimiles} ~~fax~~ dated ^{Sept 28, 1995, and} July 12, 1995, with enclosures thereto.

ISSUING AGENCY:

U.S. Nuclear Regulatory Commission

Date: July 31, 1995 Reviewer: _____
Douglas A. Broaddus

Date: July 31, 1995 Concurrence: _____
Steven L. Baggett

006

Info on Safenight (Sleepsafe)

703 989 5738

Scot Markwell

10/18/95 - ^{lib} call ~~scot~~ to
S.M. - ~~resp~~ expected
by 10/27

3) a) Drawings of the detector labeling.
Per figure 7, "CONTAINS RADIOACTIVE MATERIALS
AMERICIUM 241 0.9 MICROCURIE" is etched into the
base of all model plastic ABS housings. In
addition, an adhesive paper label will be placed
approximately in the area shown in Figure 7. The
label will either state SafeNight (licensee - SN
model series) or "U.S.NRC License No. XXX" (PL, RS,
and MA model series)

b) Point-of-sale made of typical box material. All
model packaging will include the following:

a) "Contains Radioactive Material Americium 241 0.9
Microcuries"

b) "THIS DETECTOR CONTAINS RADIOACTIVE MATERIAL AND
HAS BEEN MANUFACTURED IN COMPLIANCE WITH U.S.NRC
SAFETY CRITERIA IN 10 CFR 32.27. THE PURCHASER
IS EXEMPT FROM ANY REGULATORY REQUIREMENTS."

c) 1) SN Series will contain the name SafeNight
See Appendix 2 for approximate packaging.

2) All other model series will contain "U.S.NRC
License No. XXX" instead of the SafeNight name.
Marketing designs yet to be determined.

4) Quality control flow chart

Foil Source manufacturer - NRD or Amersham
delivered Foil in buttons

- 1) 100% tested for removable contamination
- 2) Use of lot tolerance percent defective
(LTPD) 5% acceptance sampling for conformity
to design specs

to HomeWatch Ltd Inc., Hong Kong
Incorporated into ion chamber housing.

POS package
is "Safe"
good
Would re-
have "NRC"
for SN Ser
only
all other
series have
"NRC License"

delivered to contract manufacturer (SCI Systems Inc.), one of 20 company-owned plants worldwide

Prior to Final packaging:

- 1) LTPD 5% sampling for removable contamination on ion chamber after chamber is installed on PCB
- 2) LTPD 5% sampling for design conformity



Prior to Distribution:

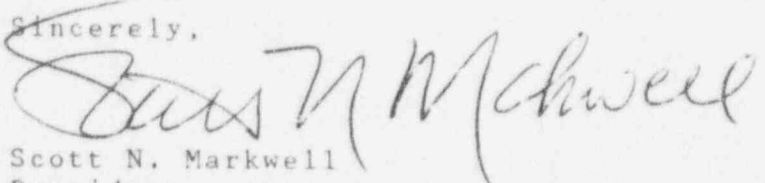
- 3) a) If foreign plant, LTPD 5% sampling to be sent to USA contracted location to perform distributor LTPD 5% sampling 1) removable containment 2) Design conformity
- b) If USA plant, Distributor LTPD 5% sampling for labels done on sight of SCI plant by SCI.



Drop-shipped to retailer/other distribution channels from plant location after USA sample testing is successfully completed.

Should there be any other questions about our responses, please let me know. Thank you.

Sincerely,


Scott N. Markwell
President

SNM/ct

Handwritten notes:
This is the
NRC
Safety must be
copies of
for NRC
So LTPD table
not stored and
modified. Pl
dead copy of
to verify it is

SCI Systems = sub contractor



Mexico

pull back to SCI in Huntsville
to do distributor testing