



# Comsip, inc.

instrument and control systems

HEADQUARTERS • 3030 Red Hat Lane, Whittier, CA 90601 (213) 892-9021 Telex: 67-4768

160470

April 13, 1983

Region IV  
Nuclear Regulatory Commission  
Suite 1000  
611 Ryan Plaza Drive  
Arlington, Texas 76011

Attention: Mr. John T. Collins,  
Regional Administrator

Subject: 10CFR21 Report

Gentlemen:

Thermodynamic calculations of the effect of iodine released in a maximum credible accident on the catalyst used in the Comsip models K-III and K-IV containment gas monitoring systems have been done by a number of groups. Since these calculations make a number of assumptions, the results do not correlate well: i.e., while evaluation by Comsip showed the catalyst life as satisfactory, Sargent and Lundy calculations indicated a life of 2 days. Therefore, Comsip initiated testing with iodine concentrations exceeding what could be expected in a large BWR: 0.02 millimeters of mercury vapor pressure.

At this concentration the standard catalyst bed remains useful for 10 days. A new configuration has been tested and shows no degradation after 5 months. Since the life of the catalyst is an inverse linear function of the iodine concentration, a large PWR (with 10 times the containment volume of an equivalent output BWR) would have a catalyst life of 100 days using the standard catalyst bed.

Comsip is manufacturing the new catalyst bed configuration which will be in all K-III and K-IV systems shipped after April 1, 1983. Additional catalyst beds are being manufactured as replacements for the catalyst beds in systems and in spare cells.

(4)

CUSTOMLINE DIVISION  
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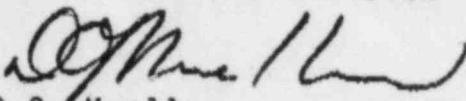
April 13, 1983  
Mr. John T. Collins  
Regional Director, Region IV  
Nuclear Regulatory Commission  
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A form letter is being sent to each customer for either systems or spare cells. It is expected that all letters will be sent by 20 May 1983. A copy of the form letter is enclosed with a list of customers.

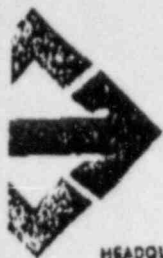
We extend our appreciation to Mr. Uldis Potapovs of the NRC for his assistance in handling this matter.

Sincerely,

Comsip Inc.,  
Delphi Systems Division

  
D.C. Mueller  
Quality Assurance Manager

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# Comsip, inc.

instrument and control systems

HEADQUARTERS • 3030 Red Hat Lane, Whittier, CA 90601 (213) 692-9021 Telex: 67-4768

160470

Date

Utility Owner  
Street Address  
City Address

Attention: Name

Subject: 10CFR21 Notification

Gentlemen:

Calculations have been made by several groups as to the effect on the catalyst used in the analyzer cell of the Comsip models K-III and K-IV Post-LOCA Containment Gas Monitoring Systems by fission-fragment iodine which may be present in the containment atmosphere after LOCA with core meltdown. Because these calculations are dependent on several assumptions, the results have been inconsistent and Comsip has therefore initiated testing to gather empirical data.

Based on the most recent calculations provided by a leading A & E firm, it is now assumed that an iodine concentration could reach 0.02 millimeters of mercury partial pressure under worst case conditions. Using this figure, Comsip is in the process of testing 2 catalyst bed configurations: The standard configuration which is in all systems and spare analyzer cells shipped prior to April 1, 1983; and a new configuration which significantly increases the path length and catalyst volume with the same outside dimensions as the original.

Results of these tests indicate that while the standard configuration catalyst beds may give satisfactory performance in most plants, Comsip feels that all standard catalyst beds should be replaced using catalyst beds of the new configuration which have shown no degradation after 5 months of continuous testing.

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Date  
Name  
Utility Owner  
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Comsip will sell to you modification kits consisting of (1) a modified catalyst bed assembly, and (2) installation procedures at our actual cost of \$ \_\_\_\_\_ per kit. We recommend that you purchase from Comsip one modification kit per analyzer cell unit (including spares) in order that this recommended modification will be performed properly. This modification equipment will be governed by a one year warranty from the date of purchase under the same terms, conditions, and limitations as the original warranty on the analyzer cell units included in your system.

To purchase one or more of these modification kits, complete and include with your order the enclosed Order Data Sheet form. We anticipate that these kits will be available within 8 weeks after receipt of your order.

Comsip is pleased to assist you in this modification process so as to bring your system up the highest state of the art.

Sincerely,

Comsip Inc.,  
Delphi Systems Division

D.C. Mueller  
Quality Assurance Manager

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ORDER DATA SHEET  
MODIFICATION KITS FOR  
COMSIP MODELS K-III and K-IV MONITORING SYSTEMS

PURCHASER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SHIPPING ADDRESS: \_\_\_\_\_  
(if different) \_\_\_\_\_  
\_\_\_\_\_

No. of units purchased  
(including spares)

Date of  
Purchase

Serial Number of  
analyzer cell

Please send \_\_\_\_\_ modification kits as described and under  
the terms stated in your letter dated \_\_\_\_\_.

\_\_\_\_\_  
Name of Company

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name (printed)

\_\_\_\_\_  
Title

\_\_\_\_\_  
Telephone No.

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