Advisory to Nuclear Customers **July 8, 2011**

Background. Our June 5, 2011 Technical Advisory advised you of higher than expected chlorine content in Safe-T-Sponge products as reported to us by one of our nuclear customers. The report of high chlorine level was of concern to us, in view of our advertising Safe-T-Sponge products as "Flame resistant foam compounded without chlorides or fluorides" based upon certification received from our foam supplier. We began an immediate investigation to verify the information received and to identify root causes for the change in chlorine levels.

Several actions were taken as part of our investigation. We sent additional samples to our customer's lab that generated the reports. We provided additional samples dating back 3 years to a second, independent lab. We also contracted for portable, random, in-house testing of our inventory and work areas. We met with our foam manufacturer's Technical Director and related personnel to discuss whether changes had been made in the formulation or manufacturing process used to make Safe-T-Sponge foam. We also consulted with a metallurgist, manufacturing engineers and chemists. Information was also exchanged with the affected site's Environmental Scientist and F.M.E. Coordinator. Members of the F.M.E. User Group were also consulted. We considered what levels of chlorine, if any, would be acceptable for products used in the nuclear industry. The GE recommended levels for chorine and other halogens of less than 450 ppm for items contacting primary systems, as noted in our customer's report, was given preference.

Results. The lab results from various tests conducted during our investigation show:

- Using the same test as in the original customer report levels of total chlorine were detected throughout production of 'orange' Safe-T-Sponge product. Readings varied between 14,767 ppm and 55,343 ppm.
- Another test indicated acceptable chlorine at 19 ppm.
- Using yet another test, water leachable chloride was detected at between 108 ppm and 322 ppm.
- Flame resistant laminate (standard on NPL-1 through NPL-4 and optional on PL-5 and larger also had elevated levels of bromine at 22,000 ppm.

Root Cause. The foam manufacturer represented that no changes were made in the foam formulation or manufacturing process since manufacturing commenced in 2008. As such,

at this time, we are unable to identify a manufacturing cause for the differences in chlorine detected throughout production history.

At this time we believe that the primary cause of the chlorine levels detected are flame resistant additives, commonly derived from chlorine, bromine and other halogens. Flame resistant chlorines in particular, are commonly used because they are low cost and readily available. We now know that one of the flame resistant components used by the manufacturer had significant chlorine content. A secondary cause may be contamination during foam handling in our facility. Although a low probability it is important to evaluate nonetheless. Lastly we must attribute some of the cause to our lack of a routine verification system to confirm that the manufacturer's certification was being met consistently.

Corrective Actions. As a result of the above we are taking the following steps:

- We are incorporating GE specifications noted above for all new Safe-T-Sponges provided to nuclear plants.
- We requested that the foam supplier reformulate the foam product to eliminate additives containing chlorine and other halogens and to meet GE specifications, followed by recertification of the reformulated product by an independent lab.
- We are implementing routine, independent testing of new production from our supplier. Each new batch will be independently tested.
- We are implementing new labeling to allow batch-traceability of nuclear supplied sponges from PL-5 and larger and specials. Work continues on smaller size labeling.
- We are revising our manufacturing procedures to minimize contact with halogens.
- We are working to eliminate bromine from our laminate.

Advanced F.M.E. Products regrets any inconvenience this issue may have caused to our nuclear customers. We are thankful for your increasing use of our products. We strive to meet our customer needs and will continue work to assure that they are met.

We appreciate your patience over the past weeks and the insight many of you have offered. We understand that you may have further questions and may need to evaluate your Safe-T-Sponge inventory. Attached to this Advisory are alternate solutions based on your unique circumstances. Regardless of the alternative selected, we will continue to work with you to assure that your requirements are met and that product supply will not be disrupted.

Customer Solutions.

A. Returns/Transfer to alternate facility. We understand that returning product may be a significant inconvenience for many sites. We do not require product to be returned should full replacement be the best solution for your site. Safe-T-Sponges affected can be placed in alternative service or scrapped. One F.M.E. Coordinator noted that they could transfer

affected Safe-T-Sponges to fossil plants within their fleet more easily than returning them. This was seconded by another F.M.E. Coordinator.
Should you desire to replenish your inventory please provide us an inventory list of part numbers and quantities to info@advancedpneumatics.com .

B. Tag ID/Discount. Should you wish to retain your current inventory we will provide tags that can be attached to the sponge identifying them as part of inventory potentially affected. Any site selecting this option will be provided an additional 25% discount on future purchases of Safe-T-Sponge product through October 2011. Please contact us with a list of inventory needing tags as noted above.

In all cases please advise us of your upcoming outage schedule and specific needs. We will arrange inventory replenishment schedules with specific site needs and outage dates. We expect replenishment to begin 1st week of August and conclude late October.

Sincerely,

Tom Nolfi

Advanced F.M.E. Products, Inc.
7241 Industrial Park Blvd.
Mentor, OH 44060
www.advsts.com

440.953.0700 office
440.953.3131 fax
440.667.7577 cell