



Decontamination Services

Decontamination of Steam Generator Pipe Ends at SONGS U3

INTRODUCTION

NuVision Engineering's proprietary pipe end decon process employs an automated dry blast cleaning system using a man-made sponge material impregnated with blast abrasive to decontaminate the pipes' inside diameter. The sponge media controls dust emissions thereby greatly reducing the risk of airborne contamination. In 2010 our team completed the decontamination of the SONGS Unit 3 steam generator elbows.

SONGS UNIT 3 PROJECT

SONGS Unit 3 is PWR nuclear station that underwent a steam generator replacement project during the fall of 2010. The NuVision decon team mobilized to California to perform our sponge abrasive decon process on the hot and cold leg elbows for each loop.

The NuVision sponge abrasive decontamination system operates on a simple, non-recycling process: the sponge media will be blasted into each elbow via a media delivery unit and a blast head. A seal dam is inserted in each elbow to prevent media from entering the Reactor Coolant System (RCS). The media is removed from each elbow after blasting via a portable HEPA vacuum system and is deposited into 55 gallon drums. The blast pressure, media feed rates, and nozzle rotation speed on the blast hopper and blast head are balanced with the vacuum pressure of the HEPA filtration system to maintain a slightly negative pressure within the pipe end /blast housing area. The negative pressure environment assures that our blast process does not create the potential for airborne contamination inside containment when we are performing our decon process. The decon system automatically stops blasting in the event the negative pressure inside the elbow approaches zero.



BENEFICIAL RELATIONSHIP

NuVision's decon work benefits project personnel who fit-up and weld the new generators into place by greatly reducing the radiation dose and contamination levels inside the elbows. The team did an excellent job completing the work ahead of schedule which helped the overall project get back on schedule. Our partners project management commended the NuVision team for their excellent performance, 1st time quality and high decon factors achieved. This was the 34th successful Steam Generator Replacement decon project that NuVision has completed.