

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
PENNSYLVANIA POWER AND LIGHT COMPANY) Docket Nos. 50-387
 and) 50-388
ALLEGHENY ELECTRIC COOPERATIVE INC.)
)
(Susquehanna Steam Electric Station)
Units 1 and 2))

AFFIDAVIT OF JAMES RIOS
IN SUPPORT OF SUMMARY DISPOSITION
OF CONTENTION 2 (CHLORINE)

County of San Francisco)
 : ss
State of California)

James Rios, being duly sworn according to law, deposes and says as follows:

1. I am Supervising Engineering Specialist for the San Francisco Power Division of Bechtel Power Corporation and give this affidavit in support of Applicants' Motion for Summary Disposition of Contention 2 (Chlorine). I have personal knowledge of the matters set forth herein and believe them to be true and correct. A summary of my professional qualifications and experience is attached hereto as Exhibit "A".

2. Contention 2 in this proceeding alleges in part that the health effects of chlorine discharged into the Susquehanna River have not been adequately assessed. In explanation of this claim, the sponsor

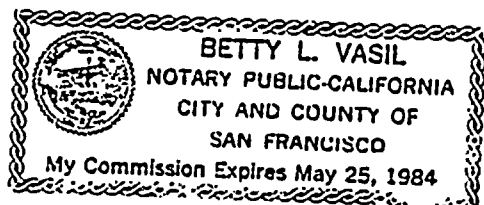
of this portion of Contention 2, Citizens Against Nuclear Danger, has asserted that the adverse health effects from the discharge of chlorine from the Susquehanna facility have been underestimated because massive increases in the use of chlorine will be required due to major increases in mine acid drainage into the Susquehanna River and because of the spills of toxic chemical wastes illegally dumped into abandoned coal mines. This assertion is incorrect.

3. The purpose for chlorinating the various water systems in the Susquehanna facility is to arrest the cumulative growth of slime-forming biolife on equipment surfaces and to disinfect the potable water supply and the sewage effluent. The presence of mine acid drainage and spills of toxic chemical wastes which may be in the Susquehanna River water does not result in any significant increase in the rate at which slime-forming biolife grows on equipment surfaces. Nor do mine acid drainage and toxic chemical spills change the amounts of chlorine required to disinfect the potable water supply and the sewage effluent. Thus the presence of mine acid drainage and spills of toxic chemical wastes does not increase the amount of chlorine which will be used.


James Rios

Sworn to and subscribed before me
this 4th day of November, 1980.


Betty L. Vasil



JAMES RIOS

SUPERVISING ENGINEERING SPECIALIST FOR SAN FRANCISCO
POWER DIVISION OF BECHTEL POWER CORPORATION.

EDUCATION:

Associate in Chemical Technology,
New York Institute of Applied Arts & Sciences 1951.
Bachelor of Chemical Engineering, 1955.

SUMMARY:

Twenty five years experience in the conceptual and detailed design of Water and Waste Water Treatment Systems, including 16 years of direct involvement in the design of these systems for over 26 power stations. These power stations included Boiling Water Nuclear Reactors, Pressurized Water Nuclear Reactors, and Fossil Fueled Plants. For the past 8 years Mr. Rios has been supervising engineering specialists who design the water and waste water treatment systems for Power Station Projects of Bechtel Power Corporation San Francisco Power Division. Mr. Rios has been directly involved in the conceptual and detailed design of chlorination and dechlorination systems for recirculating condenser cooling water systems incorporating cooling towers and once-through cooling water systems, e.g., Morgan Creek Unit #6, Gordon Evans Unit #2, Michoud Unit #3, Lake Catherine Unit #3, Jim Bridger Unit #1-3, Rush Is. Units 1 & 2, Hope Creek #1, etc.

Mr. Rios has been involved with the Susquehanna SES Project since its inception, having been directly involved in the original NPDES permit application and design of some of the water treatment systems, and continuing his association through supervision of other engineering specialists assigned to carry on the work in the area of water and waste water treatment as well as chlorination and dechlorination of the circulating water.

PROFESSIONAL ASSOCIATIONS:

Mr. Rios is a Diplomate of the American Academy of Environmental Engineers, a member of the National Association of Corrosion Engineers and a Registered Professional Engineer in the State of California (CORR-327).