STP-TS-060

COAL-FIRED PLANT DECOMMISSIONING INVESTIGATION REPORT

ASME STANDARDS TECHNOLOGY, LLC

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Date of Issuance: March 22, 2013

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Two Park Avenue, New York, NY 10016-5990
ISBN No. 978-0-7918-6879-9

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FOREWORD

Considering the recent changes in power market pricing and environmental concerns, there is a growing number of coal-fired plants that will consider decommissioning within the next several years. In an effort to address this concern, ASME ST LLC conducted a research project to evaluate what information exists for owners/independent power producers, in the areas of planning and execution of plant decommissioning. This research project was conducted to evaluate the need for ASME standards or guidelines that pertain to coal-fired plant decommissioning.

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ABSTRACT

The proposed scope of work under this ASME ST-LLC investigation was separated into three tasks as it pertains to coal-fired plant decommissioning.

The task for Part 1 focused on what documentation exists within the public domain related to coal plant decommissioning (once the decision has been reached for either economic or political means to retire a unit or plant). The results revealed sparse information in the way of standards or guidelines to direct an owner/user or Independent Power Producer (IPP) in steps necessary to conduct plant decommissioning. The only source of credible information found in the public domain was an Electric Power Research Institute (EPRI) publication on coal-fired plant decommissioning handbook.

For the task of Part 2, the author performed a high-level review of what specific decommissioning steps are required by regulation or mandate. The investigation revealed high-level decommissioning steps are published within the EPRI Handbook noted above. Each decommissioning step was discussed along with applicable regulatory standards and gaps. The results of this high level gap analysis revealed current standards exist for decommissioning activities related to air permits, water discharge or NPDES permits, waterway and storm water spill prevention, safety, security and hazardous waste removal and disposal. The author's position was that current regulatory standards apply across the board to plants in operation, as well as those plants to be decommissioned. One of the gaps found that a decommissioning team should be selected to provide an interface with the mentioned regulatory agencies and ensure proper communication and understandings of requirements are being followed.

For the task of Part 3, the research effort focused on the complete list of units which have been decommissioned and what units or plants have been identified for either decommissioning or upgrades in the future. The results of this effort revealed close to 300 units/plants are affected within the U.S. The author believes that given the current market forces and possible number of scheduled shutdowns and eventual decommissioning of units or plants, there is a need to have either a separate ASME standard or guideline to provide direction for owner/users into how to adequately plan and execute plant decommissioning.