Brookhaven Science Associates Cited for Failure to Follow Safety Rules

Penalty Reduced by Half in Recognition of Safety Progress

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WASHINGTON, DC The U.S. Department of Energy (DOE) has issued a $27,500 civil penalty to Brookhaven Sciences Associates (BSA) of Upton, New York, operator of DOE's Brookhaven National Laboratory, for a series of failures to comply with nuclear safety requirements. The violations took place from March through June 1998 at the laboratory's idle High Flux Beam Reactor, the Alternating Gradient Synchrotron used for high energy physics experiments, and the Radiation Therapy Facility used for medical treatments and operated by Stony Brook University Hospital.

While violations had the potential to result in unnecessary exposures to workers, no workers were exposed and none were a safety threat to the public. The department reduced the proposed fines by 50 percent in recognition that the laboratory has made significant progress since the incidents took place and that broad and effective corrective actions have been developed.

The safety significance of violations is ranked on a Severity Level I to Severity Level III scale. Severity Level I violations have the greatest likelihood of impacting worker or public safety; Severity Level III pose lower risks and are not normally accompanied by a fine. The violations at Brookhaven involve the following three sets of events:

- In March 1998, potentially contaminated equipment was removed from a controlled area at the High Flux Beam Reactor without the operator wearing protective clothing or notifying radiation protection personnel, violating laboratory-established procedures. Further, BSA line management did not recognize the broader implications associated with the event in its initial investigations. The Severity Level II violation calls for a civil penalty of $55,000. The department mitigated the penalty by 50 percent in recognition of improvements made since the incident occurred. The thorough and critical investigation by the newly created BSA Independent Oversight Office led to identification of broader programmatic issues and an appropriate corrective action plan.

- In June 1998, access control levels failed at the Alternating Gradient Synchrotron (AGS), a high energy physics particle accelerator. This resulted in a technician being inadvertently left inside the AGS ring, an area that becomes a 'high radiation area' during operation. The violations are of particular concern because, like those described above, management's initial investigation failed to identify the full extent of the deficiencies that caused the event. The Severity Level II violations call for a civil penalty of $55,000. The department would have mitigated the penalty by 50 percent in recognition of the comprehensive investigation subsequently conducted by the BSA Independent Oversight Office. However, because the Atomic Energy Act of 1954 does not provide for civil penalties arising from violations involving radiation from accelerators, the penalty is remitted in its entirety.

- The third set of violations relate to events at the linear electron accelerator used to treat cancer patients where one of two safety interlocks was taped over to allow the accelerator to continue operation. Redundant operable locks are required to minimize the possibility of unplanned radiation exposure to medical personnel. While the safety significance of the event is low because one interlock still functioned, DOE is concerned that BSA did not act to ensure that the facility operator, Stony Brook University, adhered to its basic safety requirements. This level of violation is not accompanied by a civil penalty.

The violations are described in a Preliminary Notice of Violation issued to the laboratory on April 15, 1999, by Dr. David Michaels, Assistant Secretary for Environment, Safety and Health. The Preliminary Notice of Violation becomes final in 30 days unless the violations are denied with sufficient justification. Brookhaven Sciences Associates is required to respond to the notice and document specific actions taken and planned to prevent recurrence. DOE will review the response to determine if further enforcement actions are necessary.

The DOE Price-Anderson Enforcement Program is now in its third year of operation. This action marks the first civil penalty issued in 1999. Additional information on this and other enforcement actions is available on the Internet at http://tis.eh.doe.gov/enforce.

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