ATTACHMENT 1
TECHNICAL SPECIFICATION 3.22 BASIS CHANGE
AUXILIARY VENTILATION EXHAUST FILTER TRAINS

Basis TS 3.22-2

The purpose of the filter trains located in the auxiliary building is to provide standby capability for removal of particulate and iodine contaminants from the exhaust air of the charging pump cubicles of the auxiliary building, fuel building, decontamination building, containment (during shutdown) and safeguards building adjacent to the containment which discharge through the ventilation vent and could require filtering prior to release. During normal plant operation, the exhaust from any one of these areas can be diverted, if required, through the auxiliary building filter trains remotely from the control room. The safeguards building exhaust and the charging pump cubicle exhaust are automatically diverted through the filter trains in the event of a LOCA (diverted on a safety injection signal). The fuel building exhaust and purge exhaust are aligned to continuously pass through the filters during spent fuel handling.

When irradiated fuel is being handled, the system is manually placed in alignment to ensure the exhaust from the fuel handling areas passes through the filters. The automatic alignment feature of the ventilation system, which initiates on a safety injection signal, is defeated unless the fuel has decayed for a sufficient period of time such that the radiological consequences of a fuel handling accident would be acceptable without iodine filtration. Defeating the automatic alignment feature requires that, in the event of a LOCA, manual actions be taken to realign the ventilation system to the charging pump cubicles and safeguards areas following actions to secure fuel handling activities.

High efficiency particulate air (HEPA) filters are installed before the charcoal adsorbers to prevent clogging of the iodine adsorbers. The charcoal adsorbers are installed to reduce the potential release of radioiodine to the environment.

ATTACHMENT 2
DISCUSSION OF CHANGES
TECHNICAL SPECIFICATION 3.22 BASIS CHANGE
AUXILIARY VENTILATION EXHAUST FILTER TRAIN

DISCUSSION OF CHANGES

INTRODUCTION

In 1974 the NRC requested Surry to incorporate additional limiting conditions for operation and surveillance requirements into the Technical Specifications to assure safety related air filter trains would function as assumed in the accident analyses for the station. Generic Technical Specifications were provided by the NRC to facilitate preparation of the Surry Technical Specification change request. The affected systems included Auxiliary Ventilation and Control Room Ventilation. The Auxiliary Ventilation System provides for the ventilation of the fuel building, decontamination building, containments, auxiliary building (which includes separate general area and charging pump cubicle ventilation) and the safeguards areas. The generic Technical Specifications provided by the NRC included a statement in the Basis section of the Auxiliary Ventilation Exhaust Filter Trains Technical Specifications that simply noted that upon receiving a LOCA signal the auxiliary ventilation dampers would automatically realign to ventilate the safeguards area of the affected unit. While this statement is generally correct, there is an exception to the statement which was not incorporated into the Surry Technical Specification Basis.

BACKGROUND

Surry Technical Specification 3.22, Auxiliary Ventilation Exhaust Filter Trains, issued in 1984, included wording similar to the NRC's generic Technical Specification regarding automatic damper alignment initiated by a LOCA signal. However, Technical Specification 3.22 did not address the exception of fuel handling. Manual switches are installed in the damper control circuitry to prevent the automatic realignment of the auxiliary ventilation dampers in the containment or the fuel building upon receipt of a LOCA signal if irradiated fuel is being handled. The ventilation dampers in the fuel building and/or containment are manually aligned to the safety related filter trains to mitigate a potential fuel handling accident. Specifically, the automatic alignment feature is defeated unless the irradiated fuel has decayed for a sufficient period of time such that the radiological consequences of a fuel handling accident without iodine filtration would be bounded by the design base fuel handling accident with iodine filtration. Automatic realignment of these dampers during fuel handling is not desirable since a spurious LOCA (safety injection) signal would close

the fuel building and containment dampers to allow ventilation from the safeguards area and the charging pump cubicles. If a fuel handling accident were in progress and a spurious safety injection signal was received, the automatic realignment of the dampers would temporarily prevent mitigation of the fuel handling accident release. To preclude this possibility, manual switches were installed in the control room to require operator action to realign the dampers if a safety injection signal is received. This is consistent with the requirements for containment purge ventilation during refueling in Technical Specification 3.10.A.15. In the event of an actual LOCA, adequate time is available for termination of fuel handling activities, repositioning of the manual switches by the control room operator and realignment of the auxiliary ventilation dampers. If fuel handling activities are not in progress, the dampers will automatically realign to the safeguards area and charging pump cubicles on a safety injection signal. Operator action is not required for this automatic function. However, this design exception was documented in our letter of August 9, 1979, which submitted the final design for the Auxiliary Ventilation System. The final system design was referenced in NRC SERs of January 17, 1984, on inclusion of ventilation system requirements into Technical Specifications (Amendments 92/91) and January 16, 1985, on evaluating fuel handling accident consequences. This exception was not properly integrated into the Basis section in Amendment 92/91 which added ventilation system requirements to the Technical Specifications.

A minor administrative change is also being made in this section to make terminology consistent with Regulatory Guide 1.52.

SPECIFIC CHANGES

The Basis of Technical Specification 3.22 is being revised to include a discussion of the manual operation of the Auxiliary Ventilation System dampers for the containment and the fuel building when handling irradiated fuel that is being, or has been recently, discharged from the reactor.

Also, an administrative change is being made to the Basis section to change the word "absolute" in the term "high efficiency particulate absolute (HEPA) filters" to "air" consistent with the definition for a HEPA filter provided in Regulatory Guide 1.52.

SAFETY SIGNIFICANCE

The current Auxiliary Ventilation System design and operation are unchanged from that approved by the NRC in Safety Evaluation Reports dated January 17, 1984 and January 16, 1985. The change to the Basis section of Technical Specification 3.22 is for clarification only to note the conditions under which the Auxiliary Ventilation System may be operated in the manual mode.