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May 4, 1987

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Subject: McGuire Nuclear Station
Docket Nos. 50-369 and 50-370

Gentlemen:

Under the provisions of 10CFR 50.59, Duke Power has constructed a Maintenance Staging Building at McGuire Nuclear Station. The building, as described in the attached report, was designed and built to provide additional area for working on contaminated/potentially contaminated materials. As this constitutes a major change to the radioactive liquid, gaseous, and solid waste treatment system, Duke has prepared the attached report pursuant to McGuire's Technical Specification 6.15 to document and evaluate the change for submittal to NRC. Due to the magnitude of the change which includes a new gaseous release point, Duke has chosen to report the changes prior to utilization of the exhaust system, rather than report the change in the next Semiannual Radioactive Release Report (due August 29, 1987) as specified in the Technical Specifications.

Duke has concluded that no changes or additions to the existing Technical Specifications are required to utilize the exhaust system as documented in the enclosed report. Utilization of the exhaust system involving potentially radioactive releases is scheduled to begin May 15, 1987. We request that NRC review this report in a timely manner and provide any staff response prior to May 15, 1987.

Very truly yours,

Hal B. Tucker

Hal B. Tucker

JBD/185/jgm

Attachment

A001 1/1 Add: NRR/DREP/RPB 4, Encl 1

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DUKE POWER COMPANY
McGUIRE NUCLEAR STATION
MAJOR CHANGE TO RADIOACTIVE WASTE SYSTEM
EQUIPMENT STAGING BUILDING

1) A summary of the evaluation that led to the determination that the change could be made in accordance with 10CFR Part 50.59;

i) The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report is not affected. The equipment staging building is a new structure that does not interact with any systems important to safety. The building is connected to existing station water, air, and waste systems, but these systems are not safety related systems. The construction of the building did temporarily affect ground water test wells and RWST discharge piping, and these issues were extensively evaluated and resolved prior to construction.

ii) The possibility for an accident or malfunction of a different type than any previously evaluated is not created. The building does not affect any safety related systems and is not used as a part of plant operation, therefore no accident scenarios are created or affected.

iii) The margins of safety as defined in the basis for any technical specification are unchanged. No safety related systems are affected by the building, therefore no safety margins are affected.

iv) No changes to the Technical Specifications are necessary.

The Equipment Staging Building and its associated exhaust system have been extensively evaluated in accordance with 10CFR 50.59 and have been found not to involve an unreviewed safety question, and that an immediate change to the McGuire Nuclear Station Technical Specifications is not necessary to utilize the building and exhaust system.

While the new building does involve a new potential gaseous effluent release point, the potential releases have been fully evaluated for the information specified in Technical Specification 6.15. The enclosed report documents this evaluation and concludes that utilization of the facility will not have a significant impact of station effluents or personnel exposure.

The exhaust system contains a HEPA filter for particulate removal and a radiation monitor to quantify any release. This equipment would normally be included in the Technical Specifications per 10CFR 50.36a; however the Commission's Interim Policy Statement on Technical Specification Improvements dated February 3, 1987 specifically discusses Radiological Environmental Technical Specifications as an area that may be removed from Technical Specifications, although 10CFR 50.36a will require amending prior to relocating these Technical Specifications.

Radiological Environmental Technical Specifications had been implemented "In order to keep releases of radioactive materials to unrestricted areas during normal reactor operations, including expected operational occurrences, as low as reasonably achievable,..." (10CFR 50.36a(a)) and requires "...technical specifications that, in addition to requiring compliance with applicable provisions of §20.106 of this chapter, require: (1) that operating procedures developed pursuant to §50.34a(c) for the control of effluents be established and followed and that equipment installed in the radioactive waste system, pursuant to §50.34(a) be maintained and used." (10CFR 50.36a(a) and §50.36a(a)(1)).

As McGuire presently has Technical Specifications in place to cover gaseous effluents (3.11.2.1, 3.11.2.2, 3.11.2.3, 3.11.2.4, and (total dose) 3.11.4), procedures to implement these specifications, and procedures controlling the use of the Equipment Staging Building Exhaust System, the requirements of 10CFR 50.36a are met. The regulation does not literally require each individual monitor to be identified and controlled by Technical Specifications, and the McGuire Facility Operating Licenses require compliance with the regulations of the Commission.

The Commission's Interim Policy Statement states "LCOs which fail to meet any one or more of the criteria below may be removed from the Technical Specifications and relocated to other licensee-controlled documents, such as the FSAR or licensee procedures." Since current Specifications meet the requirements of 50.36a and Duke has a committed program and procedures as discussed below to maintain the system, the requirements of the regulations are met as are the conditions of the Commission's Interim Policy Statement.

The only inconsistency is the discharge point is not indicated on Figure 5.1-3, Site Boundary for Gaseous Effluents. However, as Duke is constrained by the previously listed Specifications and Regulations, designating the point on the figure is of no significance. The maintenance of Chapter Five of the Technical Specifications in a timely manner is of no operational concern. Total releases, offsite doses, and offsite dose rates are already taken into account in existing Technical Specifications. Previously (1985), a demonstration (IFM) fuel assembly was partially disassembled for inspection, and upon reconstitution, one fuel rod was unable to be reinserted. With NRC concurrence, the unit operated for the full fuel cycle without a change to the Technical Specifications, though 5.3.1 specifies that fuel assemblies shall contain 264 fuel rods. This was changed at a later date to explicitly allow such changes. Therefore, in accordance with this precedent, Figure 5.1-3 need not be changed prior to utilization.

While Duke does not believe changes to the Technical Specifications are necessary, i.e. the filter and monitor need not be listed, Duke does believe that this is important equipment and will maintain it as such. Consequently, following the precedent set in Duke's March 9, 1987 Technical Specification proposal (regarding relocation of Fire Protection requirements from the Technical Specifications to the FSAR), Duke will maintain the equipment in accordance with a "Selected Licensee Commitment" in Chapter 16 of the McGuire FSAR; the new pages are enclosed. The commitment is based upon the requirements of Technical Specification 3.3.3.9 (Tables 3.3-13 and 4.3-9).

Additionally, the Offsite Dose Calculation Manual (ODCM) has been updated to account for the new potential release point.

In conclusion, based upon the preceding, Duke has conducted an extensive review in accordance with 10CFR 50.59, and has found that the change does not involve an unreviewed safety question, and that no changes or additions to the McGuire Technical Specifications are required to comply with 10CFR 50.36a because such changes are not necessary to achieve the underlying purpose of the rule, that is to control the releases of radioactive materials to be as low as reasonably achievable and to monitor any such release.

16.11 RADIOACTIVE EFFLUENTS

GASEOUS EFFLUENTS

16.11-1 EQUIPMENT STAGING BUILDING VENTILATION SYSTEM

COMMITMENT

The Equipment Staging Building Ventilation System shall be OPERABLE with:

a. An OPERABLE noble gas activity monitor (EMF-59); and

b. An OPERABLE flow rate monitor; and

c. An OPERABLE sampler minimum flow device; and

d. An OPERABLE HEPA filter.

APPLICABILITY: During gaseous effluent releases from this point

REMEDIAL ACTION:

a. With the monitor inoperable, releases via this pathway may continue for up to 30 days provided grab samples are taken once per 12 hours and analyzed for gross radioactivity within 24 hours.

b. With the flow rate monitor or sampler minimum flow device inoperable, releases via this pathway may continue for up to 30 days provided the flow rate is estimated at least once per 4 hours.

TESTING PROCEDURES:

1)	IP/0/B/3006/04	GAS TRANSFER CALIBRATION
2)	IP/0/B/3006/09	RP-30A CALIBRATION
3)	IP/0/B/3006/03A	FLOW SWITCH CALIBRATION
4)	PT/0/B/4600/05A	FUNCTIONAL TEST
5)	PT/0/B/4600/19	RADIOACTIVE GASEOUS EFFLUENT SAMPLING & ANALYSIS
6)	PT/0/B/4600/08	EMF CORRELATION
7)	HP/0/B/1009/14	ACTION FOR INOPERABLE GASEOUS INSTRUMENTATION
8)	HP/0/B/1003/15	VENTILATION ACTIVITY CALCULATION
9)	HP/0/B/1003/08	EMF SETPOINTS
10)	TP/2/A/1450/27	VK FUNCTIONAL AND ACCEPTANCE TEST
11)	PT/2/A/4450/12G	VK FILTER TRAIN AIR FLOW MEASUREMENT
12)	PT/2/A/4450/15G	VK FILTER PACKAGE VISUAL INSPECTION
13)	PT/2/A/4450/01G	VK IN-PLACE HEPA TEST
14)	OP/2/B/6450/19	EQUIPMENT STAGING BUILDING VENTILATION/CHILLED WATER SYSTEM
15)	OP/2/A/6100/10Q	ANNUNCIATOR RESPONSE FOR PANEL 2RAD1 (EMF)
16)	MP/0/B/7450/37	EQUIPMENT STAGING BUILDING VENTILATION FILTERING SYSTEM PREVENTATIVE MAINTENANCE
17)	MP/0/B/7450/27	NON-SAFETY RELATED FANS & AIR HANDLING UNITS PREVENTATIVE MAINTENANCE

REFERENCES:

HEALTH PHYSICS MANUAL:	SECTION 8.4	GASEOUS SAMPLING
	SECTION 8.2	SHIFT TECHNICIAN DUTIES
	SECTION 8.6	INDEPENDENT VERIFICATION
	SECTION 13.6	COMPOSITE SAMPLING
	SECTION 18.6	EMF ALARM ACTION

2) Sufficient detailed information to totally support the reason for the change without benefit of additional or supplemental information;

I Introduction

The Equipment Staging Building (ESB) at McGuire Nuclear Station is intended to function as a multi-purpose facility for support of routine and non-routine outage activities. In general, the ESB is necessitated by the lack of sufficient space inside the reactor building containment for maintenance work and materials/tool storage. The information provided in this report details the need for the ESB, and the need to release "potentially radioactive contaminated air" from the ESB.

II Equipment Staging Building Justification

The containment buildings at McGuire Nuclear Station are small in size as typical of ice condenser type PWR plants. Consequently, there is limited space inside containment for maintenance activities required during an outage. There is also limited space for storage of materials and tools necessary to support these activities. As a result, space limitations are a controlling factor for performance of containment activities. Interferences forced by space limitations create increased outage time, increased outage work hours, and less than optimum working conditions. Examples of maintenance activities, and materials requiring lay down space are listed below:

Activities:
- Reactor Coolant Pump Maintenance
- Reactor Coolant Pump Motor Maintenance
- Reactor Vessel Head Disassembly
- Reactor Vessel Head Stud Cleaning
- Miscellaneous Valve Maintenance
- Steam Generator Manway Stud Cleaning
- Equipment Decontamination
- Non-Routine Modifications
- Miscellaneous Parts Repair

Materials:
- Tools
- Component Insulation
- Scaffolding
- Control Rod Drive Platforms and Struts
- Reactor Vessel Studs
- Control Rod Drive Cooling Duct
- Steam Generator Primary Nozzle Dams
- Equipment Spare Parts
- Non-Routine Modification Materials

The addition of a facility (ESB), which encloses the reactor building equipment hatch, would effectively increase the working area of containment during an outage. The ESB, equipped with machine shop resources and storage space, would house several normal containment activities and materials. The result would be less overall job interference, with benefits of shorter outages, increased flexibility, and a safer work environment. Categorized below are examples of how the ESB would be utilized to achieve these benefits:

- Equipment Staging:

  Tools and materials normally transported into containment would be staged in the ESB prior to the outage, rather than stored in station warehouses. This would result in reduced transport time during the outage, allowing outage activities such as vessel head disassembly to proceed at a quicker pace. More efficient transport would also mean reduced numbers of equipment handlers required during the outage. Another benefit is reduced susceptibility to weather conditions, since the equipment hatch area is enclosed in the ESB.

- Temporary Storage:

  Disassembled equipment, such as reactor vessel head components, would be stored in the ESB during the outage; thus alleviating congestion by providing more work space inside containment. This material would also be stored more efficiently and safely by reducing the need to place material on top of the steam generator cavities. Consequently, total component disassembly and reassembly time would also be reduced.

- Work Activities:

  Several activities normally performed in containment (or the spent fuel building and hot machine shop) would be performed in the ESB. These would include routine activities such as vessel head stud cleaning, parts repair, and valve maintenance. Non-routine activities could include major component repair such as reactor coolant pump internals replacement, and plant modifications such as disposal of upper head injection piping. Relocation of some (or all) of these activities would produce several benefits. Foremost would be reducing congestion caused by multiple activities in the same area. This would alleviate delays caused by interference, and reduce containment clean-up time.

  Another benefit would be reduction of component transfer time for those activities (such as parts repair) normally performed in the auxiliary building hot machine shop. Relocation of vessel stud cleaning from the spent fuel building would save in transfer time, as well as allow spent fuel shipments from Oconee Nuclear Station to continue without delay. Also important is the flexibility the ESB would allow to handle unplanned activities while minimizing outage impact.

  The ability to move these activities, planned and unplanned, out of containment or the spent fuel building will result in lower worker doses due to the lower dose rate in the ESB. Another ALARA consideration is less work time per job may be required due to available work space and less interference as opposed to inside containment.

o Decontamination

Some tools and materials normally decontaminated and/or packaged inside containment prior to exit could be moved to the ESB for this process. The result would be decreased containment clean-up time, and reduced outage work hours by performing this work during non-critical time. Performing the work outside of containment and spending less work hours inside containment are positive ALARA considerations. Additionally, any significant contamination of the ESB may be cleaned during non-critical time, maintaing the ESB with essentially zero background dose.

One of the most important benefits of the examples mentioned above is the reduction of total time spent by station personnel inside containment. As a result, there is a corresponding reduction in radiation exposure because tasks are removed from high radiation areas. There is also a two-pronged improvement in safety conditions. First, because there would be less congestion and interference, the containment building would be a safer environment. Second, activities relocated from containment would be performed in the safer environment of the ESB.

III <u>ESB Ventilation Effluent Justification</u>

Planned ESB activities, such as equipment repair and component modifications, would involve cutting, grinding, and welding of contaminated components. Reactor vessel stud cleaning would involve dry brushing of stud threads using a power-driven brush assembly. Therefore, there would be a potential for introduction of small amounts of airborne contamination into the ESB. In order to use the ESB as intended, the ability to process this potentially contaminated air would have to be included in the ESB design. Taking this into account, the design of the ESB includes a particulate filter and an effluent radiation monitor.

Because the Unit Vent Stack is sized only for existing designed inputs, it was determined that filtered air from the ESB should be exhausted to the atmosphere as a separate release point. (Excessive flow rates through the unit vent would inhibit ESB flow due to back pressure, and existing vent inputs would also be penalized.) Although this would constitute a new radioactive effluent release point, it is determined to be more practical because of the expense of upgrading the unit vent. Also, an advantage for the separate release is the certainty of the source in the vent of alarm conditions. (In regards to dispersion, atmospheric conditions are considered to be identical to the unit vent because of proximity.) It is important to note that the airborne contamination created in the ESB would not be a new source. The source is considered existing because the activities currently are performed without benefit of the ESB.

3) A detailed description of the equipment, components, and processes involved and the interfaces with other plant systems;

The maintenance staging building (MSB) is located adjacent to the reactor building equipment hatch. Steel reinforced concrete caissons and a slab on grade support the steel framed, metal siding covered building. It is located in the corners formed by the reactor and fuel buildings. Contact between the MSB and the reactor and fuel building is through expansion joints; there are no rigid connections. The MSB is approximately 50 feet wide by 100 feet long and 60 feet high. Space in the building is open except for male and female change rooms, access portal, and security area. A platform covers the end of the MSB adjacent to the reactor building. It is the same elevation as the operating floor of the reactor building, approximately 19 feet above the slab. Temporary bridges connect the MSB platform with the reactor building operating floor. Materials and equipment are moved by a 50 ton bridge crane (with a 2 ton auxiliary hoist) which covers most of the building and part of the platform. Two 2 ton jcb cranes are also installed in the building. One is located in the equipment hatch to transfer loads from the MSB platform to the reactor building operating floor. The other is located at the edge of the platform to transfer loads from the slab to the platform, or vice versa. A large rolling door at the far end of the building will allow a semi-trailer to be backed into the building and parked. An HVAC system will condition air in the building. Exhaust from the building is treated by conventional (non-charcoal) filters and monitored by a radiation detectors.

The building is used to stage materials and tools prior to and during outages. Equipment removed from the reactor coolant and related systems is stored and serviced in the MSB. Minor machining work is done with the permanently installed drill press, pedestal grinder, and arbor press. Health physics and security control of personnel and equipment entering or leaving the reactor building will be handled in the MSB. The equipment hatch will remain open throughout the outages, except during fuel movement when the equipment hatch is closed for containment integrity. The MSB is designed to withstand seismic events without damaging the reactor or fuel buildings.

PURPOSE

The Equipment Staging Building is located outside the Reactor Building equipment hatch adjacent to the Fuel Building. The purpose for this building is increased laydown area for the Reactor Building during outages, storage of outage equipment, assembly and disassembly of Reactor Building components and environmental protection for equipment and personnel during an outage.

1) BUILDING DESIGN

A) The Equipment Staging Building is a QA Condition 4 (non-safety related, not required during or after a seismic event, but whose physical deterioration could adversely affect a safety related component, system or structure) steel structure design. The approximate building dimensions are 125' x 66'.

B) The building is built structurally independent from the Reactor Building and Fuel Building and is connected by a waterproof sealant material.

C) Exterior walls are of face brick and concrete masonry (on an eight inch high concrete curb) to El. 781+6 with aluminum siding above.

D) The floor is slab on grade with a finished elevation 760+6.

*The existing earth ramp was removed to allow the building to be built on grade.

*Once the earth ramp was removed CMD-N conducted a soil investigation and detailed site plan showing exact locations of CCW pipes or other interferences.

*The existing pipe trench located in the yard near the Reactor Building was incorporated in design of the floor slab and remains accessible inside the Equipment Staging Building. Trench covers were replaced with a new design.

*The Equipment Staging Building did not interfere with the existing groundwater test wells.

E) The roof of the structure is a single-ply type on metal decking with required roof drainage. (Routed directly to yard drainage system).

F) A concrete washdown pad, diesel air compressor pad, HVAC condensing unit pad and sidewalk outside of the building.

G) Sludge lancing provisions were added to the exterior of the building. These provisions will include 1) 2" contaminated drain line 2) 2" YM supply line 3) 440 VAC 100 amp 3-Phase power supply 4) 2-110 VAC 30 amp receptacles 5) telephone jack 6) 10" x 10" lockable wall opening for vendor hoses and cables.

H) The following areas are contained within the structure: 1) Truck bay and washdown area, 2) small machine shop, 3) men and women's change rooms, 4) laydown area, 5) equipment staging platform 6) K-Mac storage area, and 7) security room.

I) Decon coatings are required for floors and walls.

J) Any openings (i.e., - cable/pipe trench, HVAC etc.) in the exterior walls of the building shall meet all McGuire security requirements.

2) ACCESS REQUIREMENTS

A) A rolling door (motor-operated) 20-0 wide and 21-0 high will serve as the entrance into the truck bay area.

*The controls for the motor-operated door are located in the security room.

B) A personnel door at column lines 3 and NN will serve as the only other exterior entrance into the building.

*Prepare door for security hardware.

C) Steel stairs are required for access from the floor at El. 760+6 to the staging platform at El. 778+10.

3) AREA REQUIREMENTS

A) Men's and women's change rooms consist of a clean toilet side and contaminated change side. The change rooms have concrete block walls. They each have two personnel access doors. Each change room consists of the following:

*2 water closets (with partitions)
*1 urinal (men's toilet)
*4 sinks - 2 per side
*1 shower area
*lockers (two lockers per unit)
men - 13 units
women - 8 units
*1 bench
*miscellaneous toilet accessories

B) A security room is required to control and monitor personnel and truck access.

*The walls of the security room are of 8" concrete block with store-front glass and a half glass personnel door opening into the truck bay.

*Badge racks and a shelf for mounting the door control console are required.

*Provide an access opening in the store-front glass of the personnel portal for issuance and receipt of security badges.

C) The change rooms, security room, and access portal have suspended ceilings, and a concrete roof which provides a floor for placement of HVAC equipment.

D) The machine shop area included the following items which were supplied by Nuclear Production:

*22" drill press
*15 ton arbor press
*Two 575 VAC welders
*12" pedestal grinder
*4 x 6 metal work bench
*tool storage cribs
*ventilation ductwork to equip.

E) The janitor storage area is enclosed by a wire mesh partition and gate.

*1) Utility sink is required.

F) The HVAC equipment is located on the concrete roof above the change rooms, and security room.

*The filter train and air handling unit requires a 4" concrete pad.

*Removable handrails are required around the perimeter of HVAC equipment area.

*The HVAC condensing unit is located outside the building on a 6" concrete pad. The condensing unit requires a clear area of 5'-0" on all four sides.

4) MECHANICAL SYSTEMS/EQUIPMENT

A) Demineralized water supply (YM)

B) Breathing air outlets (VB)

C) Hot and cold water supply (YD)

D) Contaminated drainage (WL)

E) Sanitary sewage (WT)

F) HVAC filtration units

G) Fire protection

H) Station air requirements

I) Filtered exhaust system or exhaust hoods

J) Provisions for hook-up area outside rolling door for temporary air compressor. Air line from temporary compressor to run along north and east walls with air outlets spaced no more than 10'-0" apart on east wall. A 2" air line with hook-ups to be placed outside equipment hatch area. Temporary air line to be tied in with station air.

H) HVAC equipment

*air handling unit
*condensing unit (located outside)
*filter train

I) Radiation monitoring requirements

*4-frisker radiation monitors (supplied by station health physics)
*1-gas monitor

J) Sludge lancing provisions

5) ELECTRICAL SYSTEMS/REQUIREMENTS

A) Lighting, security lighting, emergency lighting

B) Motor control center with spare breakers
(2-200 Amp, 3-100 Amp, 3-60 Amp, 3-30 Amp)

C) 120 VAC outlets as required

D) Equipment power requirements

*HVAC equipment - air handling unit, exhaust fans, duct heaters, space heaters, condensing unit.
*radiation monitors
*bridge crane, job cranes
*motor-controlled rolling door
*machine shop equip
*sump pumps
*level switches
*fire protection - sprinkler system, heat detectors

E) Security requirements

F) Electrical equipment - motor control center transformers, breakers, cable tray, starters, hangers, etc.

G) Communications systems

6) CRANES AND PLATFORMS

A) An electrically operated 50 ton bridge crane with 20 ton auxiliary hoist is required for removal of Reactor Building equipment.

*crane speed should be comparable with that of polar crane
*should have retractable pendant controls
*the largest items to be removed is the reactor coolant pump motor (44 tons)

B) A 2-ton jib crane with 18 ft. boom and electric hoist is required. The jib crane is located at column lines 1a-LL on the north end of the staging platform and is used in lifting lighter items to and from the staging platform.

C) A 2-ton jib crane with 16 ft. boom is required inside the Reactor Building equipment hatch. This jib crane is used for moving light items through equipment hatch and erecting platforms for equipment removal.

D) The staging platform

*Designed for 300 PSF (and RCP removal)
*The platform consists of steel plate welded to steel grating. This allows for containment of contaminated spills and better utilization of dollies and carts.
*Removable handrail is required.
*A pull point located at column lines LL-1a aids in equipment removal through the equipment hatch.

E) Reactor coolant pump platform

*Minor modifications to existing reactor coolant pump platform are required due to interfaces with Equipment Staging Building.
*Reactor coolant pump platform should be installed during each outage for equipment removal and personnel access.

F) An overhead crane maintenance access platform located at column lines 49 and PPb is required.

G) Reactor coolant pump laydown area

7) CURBS AND DRAINAGE REQUIREMENTS

A) Contaminated drainage is required in all areas of the building. (QA 4 Piping)

B) Existing WZ piping, which needed to be rerouted due to interferences, is QA 1 (nuclear safety-related).

C) 8" concrete curbing is required under the concrete block exterior walls and change rooms as indicated on the general arrangement drawings.

D) The exterior washdown pad should slope away from the rolling door to prevent drainage into the building.

E) The drainage system requires a sump and will tie into the existing station system.

*The contaminated sump is lined with stainless steel and divided into two sections by an east-west concrete divider. The north sump is the floor drain sump and the south sump is the shower sump. The concrete divider top elevation is 6" below the floor elevation to allow one sump to overflow into the other.

*Cross-over piping between the two sumps.

*Each sump has two sump pumps and level switches.

F) Floor drains are required in the truck bay area and are routed to floor drain sump via embedded 4" line.

G) Floor drains should be located as appropriate and routed via 2" line to the floor drain sump.

H) A 2" embedded line should be routed from the janitor's utility sink to the floor drain sump.

I) The contaminated side sinks and showers have drains routed to the shower sump.

J) Sanitary sewage drains such as sinks and water closets are routed to the plant sewage system as specified by MDSS.

K) Water supply lines is specified by MDSS.

L) All embedded pipe to the contaminated sumps are of stainless steel pipe.

8) <u>FIRE PROTECTION</u>

A) An automatic sprinkler system

B) Two fire hose cabinets

C) Four (15 pound) CO_2 fire extinguishers

9) <u>STEAM GENERATOR REMOVAL</u>

A) With the exception of the design of the concrete floor slab, the Equipment Staging Buildings is not designed to accommodate the removal of the steam generators. In the event the steam generators are to be removed, all or portions of the building is disassembled. A temporary platform is constructed and provisions made as necessary to aid in the generator removal.

B) The Equipment Staging Building is a structural steel frame utilizing bolted connections to facilitate member dismantling.

10) <u>CATHODIC PROTECTION WELLS</u>

A) All cathodic protection wells that interfere with building is deleted.

B) The Equipment Staging Building is built on top of 5 of 12 wells.

11) <u>GROUND WATER TEST WELLS</u>

The ground water test wells are a tech spec item. That requires that all wells be checked at least every seven days to verify it is not in alarm.