

MEMO TO: Engineering Department Personnel

FROM: Chief Engineer

SUBJECT: J O B D E S C R I P T I O N S

REFERENCE: Technical Specifications, SPS-9, dated May 1964
as approved - Section I, page 39-Subject, "Administrative
and procedural Safeguards" Paragraph (d).

In accordance with the reference above the following job description
is forwarded to you for your information and guidance.

T. Kedzierski
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Chief Engineer

THIRD ASSISTANT ENGINEER (REACTOR OPERATOR)

Certification

The Reactor Operator shall be a U. S. Coast Guard licensed Third Assistant Engineer (or higher), Steam Vessels, Unlimited H.P. and tonnage and certified by the U. S. A. E. C. as a Reactor Operator for the N. S. SAVANNAH.

Responsibilities

The Reactor Operator shall be responsible to the Senior Watch Engineer in all matters pertaining to the operation of the reactor while on watch.

D u t i e s: (Normal Conditions)

The Reactor Operator shall be responsible for controlling all activities pertaining to the direct operation of the reactor from the main console station. The Reactor Operator shall keep himself informed of all standard and emergency operating procedures as written and amended together with the general plant condition and instrumentation as deemed applicable to his position. He will perform the following duties under the direction and cognizance of the Senior Watch Engineer.

1. Manipulate control rods as required to meet the power demand.
2. Observe and control the primary system pressure tieups and levels as required to maintain the reactor plant within specifications.
3. Control primary system water inventory, purification and buffer seal system operation.
4. Observe and control reactor flux levels and start up rates as required.
5. Periodically check the displayed nuclear instrumentation on the console for individual and auctioneered signal outputs.
6. Periodically check the alternate instrumentation display of reactor primary and support systems together with recorded values as applicable to rto reactor operation.
7. Assist in the performance of pre-critical check outs together with maintaining the required data sheets during pre-critical and critical operation.

THIRD ASSISTANT ENGINEER (REACTOR OPERATOR) (Continued)

Duties: (Abnormal Conditions)

Under abnormal conditions the Reactor Operator will initiate such action as is required to return the reactor system to normal conditions as consistent with standard and emergency procedures. He will insure at all times that the reactor is under complete control and that minimum standards have been met for reactor operation. He will keep the Senior Watch Engineer informed as to any abnormalities noted together with the corrective action taken.

Duties: (Emergency Conditions)

During emergency conditions the reactor operator will remain in front of the control console and be prepared to secure the reactor by whatever means available should such be required. Under no circumstances is he to leave the reactor control console unless specifically directed to do so by the senior engineering officer present. He will be fully aware of all emergency procedures pertaining to the reactor and be prepared to initiate such action should it be deemed necessary.

The Reactor Operator should be prepared to secure the reactor when it becomes apparent that the safety system has failed to initiate such action and conditions present are such as to place the plant outside the technical specifications and thereby require a shut down.

The Reactor Operator will keep the Senior Watch Engineer appraised of all conditions deemed abnormal or outside of approved or accepted limits.

THIRD ASSISTANT ENGINEER (AUXILIARY OPERATOR)

Certification

The auxiliary operator shall possess a valid U. S. Coast Guard license as Third Assistant Engineer, Steam Vessels, Unlimited H. P. and tonnage together with a U. S. A. E. C. certification as Reactor Operator for the NS SAVANNAH.

Responsibilities:

The auxiliary operator will be responsible to the senior watch engineer in all matters pertaining to the operation of equipment outside of the main machinery spaces and normally under the cognizance of the engineering department.

Duties: (Normal Conditions)

The auxiliary operator will be responsible for the operation and surveillance of machinery and equipment located in the following spaces:

1. Control Rod Drive Lubricles.
2. Upper Reactor Space.
3. Forward Control Area.
4. Port and Starboard Stabilizer Rooms.
5. Emergency Generator Room.
6. Various Fan and Ventilation Spaces.
7. Steering Gear Room.

The auxiliary operator will keep himself informed as to the condition and line up of all systems within these spaces together with the deficiencies as noted on the various equipment and instrumentation.

During periods of normal operation the auxiliary operator will make assigned rounds of these areas and note specific data as required. He will immediately report to the Senior Watch Engineer any abnormal or unusual conditions noted.

THIRD ASSISTANT ENGINEER (AUXILIARY OPERATOR) (Continued)

The auxiliary operator will keep himself informed of the standard and emergency procedures as written and amended and as applicable to the equipment under his cognizance.

The auxiliary operator will assist as directed in the operation of the main propulsion plant during periods of normal operation when his presence is not required in the outside machinery spaces.

The auxiliary operator will provide participation in the normal water chemistry operations to the extent that participation by the licensed engineers is required.

Duties: (Abnormal Conditions)

In the event of abnormal conditions the auxiliary operator will initiate such action as is required to restore the plant to normal conditions. He will immediately report such conditions and action taken to the Senior Watch Engineer.

Duties: (Emergency Conditions)

In the event of emergency conditions the auxiliary operator will initiate that action required to return the system to a normal or safe condition. He will immediately report such conditions and action taken to the Senior Watch Engineer.

THIRD ASSISTANT ENGINEER (STEAM PLANT OPERATOR)

Certification:

The steam plant operator will hold a valid U. S. Coast Guard license as Third Assistant Engineer, Steam Vessels unlimited H. P. and tonnage (or higher). He will be expected to have sufficient knowledge of the reactor and support systems to permit him to effectively operate those systems located within the main machinery spaces together with the conventional power equipment.

Responsibilities:

The Steam plant operator will be directly responsible to the Senior Watch Engineer in all matters pertaining to operation and maintenance of the equipment located within the main machinery spaces.

D u t i e s: (Normal Conditions)

Under normal conditions the steam plant operator will be responsible for the operation of all main propulsion and auxiliary machinery located within the confines of the main machinery spaces and as such will keep himself freely informed as to current plant status. He will direct the watch oiler in the performance of his duties and insure an adequate and complete check of all operating machinery.

The steam plant operator will keep the Senior Watch Engineer informed of any unusual or abnormal conditions present.

The steam plant engineer will maintain a log book of significant events, repairs and deficiencies occurring within the main machinery spaces during his assigned watch periods. Such information should in turn be forwarded to the Senior Watch Engineer for comment or action as required.

THIRD ASSISTANT ENGINEER (STEAM PLANT OPERATOR) (Continued)

D u t i e s: (Abnormal Conditions)

In the event of abnormal conditions the steam plant operator will initiate such action as is required to return the plant to normal conditions. He shall keep the Senior Watch Engineer informed of such action taken.

D u t i e s: (Emergency Conditions)

Under emergency conditions the steam plant engineer will initiate such action as is required to restore the plant to a normal or safe condition. He will inform the Senior Watch Engineer of such action taken.