

Appendix F

Appendix F Radiation Work Permits

Radiation Work Permits (RWPs) are used to control radiological work by specifying dress requirements for a job, respiratory protection requirements, dosimetry requirements, and work restrictions. Special work instructions may be added to protect members of the project.

RWPs were written for a specific function, such as entering primary containment when radiological conditions were unknown. Other RWPs were written more generally once the radiological conditions were determined.

RWPs were closed when they no longer applied or an area was cleared of any radiological restrictions. Several RWPs were modified to reflect changing radiological conditions.

All active RWPs were posted near the instrument storage area to permit easy access for project members. A briefing was conducted whenever a RWP was created or modified. Project members signed onto the RWP after they were briefed.

The thirteen RWPs written to control the various phases of radiological work during this project include the following:

- Stateroom B-1, Rad Waste Storage
- Health Physics Lab at Hospital
- Port and Starboard Stabilizer Rooms
- Fan Room, B Deck, across from Stateroom B-1
- Port and Starboard Charge Pump Rooms, lower level of engine room
- Hot Chemistry Lab next to Control Room
- Cold Chemistry Lab, Port side "C" Deck
- Entry into Secondary Containment from Hatch on "B" Deck
- Lower level of Secondary Containment
- Entry into Primary Containment from Secondary Containment
- Lower levels of Primary Containment
- Primary and Secondary Containment, all levels
- Opening of steam generators, primary side

| | | |
|----------|---|-------------------------|
| Form F-1 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Work Authorization Request | Date: <i>4-12-05</i> |
|----------|---|-------------------------|

**REQUEST FOR WORK AUTHORIZATION
AND ENTRY INTO RADIATION CONTROL AREA**

| | |
|------------------------------|--------------------------------|
| To: RADIATION SAFETY OFFICER | From: <i>R. J. Stouckey</i> |
|------------------------------|--------------------------------|

A. Compartment or space to be entered:
*LOWER HEAVIS OF PRIMARY CONTAINMENT
(BELOW 1ST HEAVY)*

B. Date(s) to be entered:

B. Reason for entry (type work or inspection to be performed, etc):
TAKE PAINT & METAL SAMPLES

D. Material, equipment, machinery, parts, components, etc. to be removed:
SAMPLES

E. Number of personnel required to perform work or inspection: *3*

F. Identification of Person submitting request (name, title, phone, fax, email, etc.):
R. J. Stouckey, PM, 804 938-1261

Permission for Work Authorization and Entry is approved based on information submitted above, subject to the following conditions: *AS INDICATED ON FORM F-2 ENTRY INSTRUCTIONS*

| | |
|-------------------------------------|----------------------|
| Signature: <i>Robert L. Pinnock</i> | Date: <i>4-12-05</i> |
|-------------------------------------|----------------------|

4-15-05 RWP CLOSED
Robert L. Pinnock

| | | |
|----------|--|-------------------------|
| Form F-2 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Entry Instructions and Requirements | Date: <i>4-12-05</i> |
|----------|--|-------------------------|

INSTRUCTIONS AND REQUIRMENTS FOR ENTRY INTO RADIATION CONTROL AREAS AND COMPARTMENTS

A Work Authorization Request (Form F-1) must be submitted and approved prior to entry into any Radiation Control Areas aboard the N/S SAVANNAH. Control Areas are defined as any space, compartment, or area designated as a Radiation Area due to the presence of radioactivity, radiation sources, residual radioactivity, or radioactive contamination in the space or on equipment, in systems, etc. These areas are posted with the appropriate radiation caution signs. Entry into Control Areas should be made with the minimum number of persons required to perform the work or inspection. Time required to perform work or inspections should be as short as possible to prevent unnecessary radiation exposure to personnel.

| | |
|--|---|
| A. Compartment or space to be entered: <i>LOWER LEVELS OR PRIMARY CONTAINMENT (BELOW 1ST LEVEL)</i> | B. Date and time entered: <i>4-13-05 8:30 AM</i> |
|--|---|

C. Protective Clothing Shall be worn as follows:

| | |
|---|------------------------------------|
| 1. Anti-C Suits (coveralls)..... <u> ✓ </u> | 2. Shoe Covers <u> ✓ </u> |
| 3. Gloves <u> ✓ </u> | 4. Respirators <u> </u> |
| 5. Hoods (head cover) <u> ✓ </u> | 6. <u> </u> |

D. Personnel Dosimeters Shall be worn by each worker: YES ✓ NO

E. Record of Personnel Exposure Shall be maintained : YES ✓ NO
 (Maintain Personnel Exposure Record on form C-1)


F. Record of Numbered Security Seals:

Number on seal removed: _____ Removed By: _____

Number on seal installed: _____ Installed By: _____

G. Other Information: *FRISK HANDS & FEET AT SOP UPON EXIT.*

PERSONNEL SIGN ON:

Ralph Pennock 

John B.

Ben

RNO REPLACED 4-12-05

APR 14-15-05

Ralph Pennock

| | | |
|----------|--|-------------------------|
| Form F-2 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Entry Instructions and Requirements | Date: <i>4-19-05</i> |
|----------|--|-------------------------|

INSTRUCTIONS AND REQUIRMENTS FOR ENTRY INTO RADIATION CONTROL AREAS AND COMPARTMENTS

A Work Authorization Request (Form F-1) must be submitted and approved prior to entry into any Radiation Control Areas aboard the N/S SAVANNAH. Control Areas are defined as any space, compartment, or area designated as a Radiation Area due to the presence of radioactivity, radiation sources, residual radioactivity, or radioactive contamination in the space or on equipment, in systems, etc. These areas are posted with the appropriate radiation caution signs. Entry into Control Areas should be made with the minimum number of persons required to perform the work or inspection. Time required to perform work or inspections should be as short as possible to prevent unnecessary radiation exposure to personnel.

| | |
|--|--|
| A. Compartment or space to be entered: <i>OPENING OF STEAM GEN.</i> | B. Date and time entered: <i>4-20-05</i> <i>4-21-05</i> <i>4-22-05 - 1400</i> |
|--|--|

C. Protective Clothing Shall be worn as follows:

| | |
|--|---|
| 1. Anti-C Suits (coveralls)..... <input checked="" type="checkbox"/> | 2. Shoe Covers..... <input checked="" type="checkbox"/> |
| 3. Gloves..... <input checked="" type="checkbox"/> | 4. Respirators..... <input checked="" type="checkbox"/> |
| 5. Hoods (head cover)..... | 6. |

D. Personnel Dosimeters Shall be worn by each worker: YES NO

E, Record of Personnel Exposure Shall be maintained : YES NO
 (Maintain Personnel Exposure Record on form C-1)

F. Record of Numbered Security Seals:

Number on seal removed: *N/A* Removed By: _____

Number on seal installed: _____ Installed By: _____

G. Other Information: *HANDLE SAMPLES CAREFULLY & WITH GOOD CONTAMINATION CONTROL PRACTICES. SURVIV WORK AREA AFTER COMPLETION OF JOB.*

PERSONNEL SIGN ON
Robby [Signature]
[Signature]

4-25-05 WORK DONE SYSTEM CLOSED.
RUP CLOSED
Robby [Signature]

| | | |
|----------|---|------------------|
| Form F-1 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Work Authorization Request | Date: 4-19-05 |
|----------|---|------------------|

**REQUEST FOR WORK AUTHORIZATION
AND ENTRY INTO RADIATION CONTROL AREA**

| | |
|------------------------------|------------------------|
| To: RADIATION SAFETY OFFICER | From: John W. Bowen |
|------------------------------|------------------------|

| | |
|--|--|
| A. Compartment or space to be entered: OPENING OF STEAM GENERATOR | B. Date(s) to be entered: 4-20-05 4-21-05 4-22-05 |
|--|--|

B. Reason for entry (type work or inspection to be performed, etc):
INSPECTION, SMOKE SURVEY DOSE RATE SURVEY

D. Material, equipment, machinery, parts, components, etc. to be removed:
NONE

E. Number of personnel required to perform work or inspection: 3

F. Identification of Person submitting request (name, title, phone, fax, email, etc.):

John Bowen
 Chief Engineer
 804.615.1118
 804.789.1576

johnw@WPI.biz 4/19/05
 john-bowen@WPI.biz

Permission for Work Authorization and Entry is approved based on information submitted above, subject to the following conditions: FULL DRESS AS SPECIFIED ON F-2 ENTRY INSTRUCTIONS

| | |
|---------------------------------|---------------|
| Signature: <i>Rolfe Pennock</i> | Date: 4-19-05 |
|---------------------------------|---------------|

| | | |
|----------|--|-----------------|
| Form F-2 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Entry Instructions and Requirements | Date: 4-4-05 |
|----------|--|-----------------|

INSTRUCTIONS AND REQUIRMENTS FOR ENTRY INTO RADIATION CONTROL AREAS AND COMPARTMENTS

A Work Authorization Request (Form F-1) must be submitted and approved prior to entry into any Radiation Control Areas aboard the N/S SAVANNAH. Control Areas are defined as any space, compartment, or area designated as a Radiation Area due to the presence of radioactivity, radiation sources, residual radioactivity, or radioactive contamination in the space or on equipment, in systems, etc. These areas are posted with the appropriate radiation caution signs. Entry into Control Areas should be made with the minimum number of persons required to perform the work or inspection. Time required to perform work or inspections should be as short as possible to prevent unnecessary radiation exposure to personnel.

| | |
|--|--|
| A. Compartment or space to be entered: <i>STATE ROOM B1 B DIESEL</i> <i>RAD WASTE STORAGE AREA</i> | B. Date and time entered: <i>4-4-05 9:30 AM</i> |
|--|--|

C. Protective Clothing Shall be worn as follows:

| | |
|--|---|
| 1. Anti-C Suits (coveralls)..... _____ | 2. Shoe Covers..... <input checked="" type="checkbox"/> |
| 3. Gloves..... <input checked="" type="checkbox"/> | 4. Respirators..... _____ |
| 5. Hoods (head cover)..... _____ | 6. _____ |

D. Personnel Dosimeters Shall be worn by each worker. YES NO _____

E. Record of Personnel Exposure Shall be maintained. YES NO _____
 (Maintain Personnel Exposure Record on form C-1)

F. Record of Numbered Security Seals:

Number on seal removed: *N/A* Removed By: _____

Number on seal installed: _____ Installed By: _____

G. Other Information:

FRISK HANDS & FEET UPON EXIT NO STEP OFF PAD REQUIRED.

PERSONNEL SIGN ON

Ralph Linnard

James H. Powell

Loth

4-15-05 AREA CLEANED NOTHING REQUIRED FOR ENTRY

Ralph Linnard

4-25-05 PROJECT COMPLETE, RWP CLOSED

Ralph Linnard

| | | |
|----------|---|-----------------|
| Form F-1 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Work Authorization Request | Date: 4-4-05 |
|----------|---|-----------------|

**REQUEST FOR WORK AUTHORIZATION
AND ENTRY INTO RADIATION CONTROL AREA**

| | |
|------------------------------|-------------------------------|
| To: RADIATION SAFETY OFFICER | From: <i>John W. Bowen</i> |
|------------------------------|-------------------------------|

| | |
|--|--|
| A. Compartment or space to be entered: <i>B DECK STATE ROOM B-1</i> <i>RADIOACTIVIZ WASTE STORAGE AREA</i> | B. Date(s) to be entered: <i>4-4-05</i> |
|--|--|

B. Reason for entry (type work or inspection to be performed, etc):
TO PERFORM INSPECTION, SMALL SURVEY, DIRT AREA SURVEY AND FRISK OF RAD WASTE STORAGE AREA

D. Material, equipment, machinery, parts, components, etc. to be removed:
NONE

E. Number of personnel required to perform work or inspection: *3*

F. Identification of Person submitting request (name, title, phone, fax, email, etc.):
John W. Bowen
Proj. Engineer
Ph 804.615.1118
F 804.789.1476
email: john-bowen@wpi.biz

Permission for Work Authorization and Entry is approved based on information submitted above, subject to the following conditions: *AS LISTED ON "ENTRY INSTRUCTIONS AND REQUIREMENTS" FORM F-2*

| | |
|-------------------------------|---------------------|
| Signature: <i>[Signature]</i> | Date: <i>4-4-05</i> |
|-------------------------------|---------------------|

| | | |
|----------|--|------------------------|
| Form F-2 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Entry Instructions and Requirements | Date: <i>4-8-05</i> |
|----------|--|------------------------|

INSTRUCTIONS AND REQUIRMENTS FOR ENTRY INTO RADIATION CONTROL AREAS AND COMPARTMENTS

A Work Authorization Request (Form F-1) must be submitted and approved prior to entry into any Radiation Control Areas aboard the N/S SAVANNAH. Control Areas are defined as any space, compartment, or area designated as a Radiation Area due to the presence of radioactivity, radiation sources, residual radioactivity, or radioactive contamination in the space or on equipment, in systems, etc. These areas are posted with the appropriate radiation caution signs. Entry into Control Areas should be made with the minimum number of persons required to perform the work or inspection. Time required to perform work or inspections should be as short as possible to prevent unnecessary radiation exposure to personnel.

| | |
|--|---|
| A. Compartment or space to be entered: <i>CHARGE Pump Rooms Port & Star</i> <i>CHARGE</i> | B. Date and time entered: <i>4-8-05</i> |
|--|---|

C. Protective Clothing Shall be worn as follows:

| | |
|--|---|
| 1. Anti-C Suits (coveralls)..... <input checked="" type="checkbox"/> | 2. Shoe Covers..... <input checked="" type="checkbox"/> |
| 3. Gloves..... <input checked="" type="checkbox"/> | 4. Respirators..... <input type="checkbox"/> |
| 5. Hoods (head cover)..... <input type="checkbox"/> | 6. <input type="checkbox"/> |

D. Personnel Dosimeters Shall be worn by each worker: YES NO

E, Record of Personnel Exposure Shall be maintained : YES NO
(Maintain Personnel Exposure Record on form C-1)

F. Record of Numbered Security Seals:

Number on seal removed: _____ Removed By: _____

Number on seal installed: _____ Installed By: _____

G. Other Information: *FRISK WHOLE BODY UPON EXIT AT SOP.*
NO ENTRY UNTIL CLEARED WITH AIR SAMPLE FOR AIRBORNE RADIOACTIVITY

PERSONNEL SIGN ON:

Benjamin J. [Signature]
[Signature]
[Signature]

| |
|--|
| <i>4-14-05 CHARGE pump Rooms</i> <i>CLEARED - DOSIMETRY ONLY</i> <i>FOR ENTRY: R4 Permah</i> <hr/> <i>4-29-05 PROJECT COMPLETE</i> <i>RWP CLOSED R4 Permah</i> |
|--|

| | | |
|----------|---|-----------------|
| Form F-1 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Work Authorization Request | Date: 4-8-05 |
|----------|---|-----------------|

**REQUEST FOR WORK AUTHORIZATION
AND ENTRY INTO RADIATION CONTROL AREA**

| | |
|------------------------------|------------------------|
| To: RADIATION SAFETY OFFICER | From: R. JAW Stouky |
|------------------------------|------------------------|

| | |
|--|-------------------------------------|
| A. Compartment or space to be entered: RIP SURGE PUMP Room PORT & STARBOARD C. HARCIE | B. Date(s) to be entered: 4-8-05 |
|--|-------------------------------------|

B. Reason for entry (type work or inspection to be performed, etc):
INSPECTION, SHEAR SURVEY, FRISK SURVEY, AND DOSE RATE SURVEY

D. Material, equipment, machinery, parts, components, etc. to be removed:
None

E. Number of personnel required to perform work or inspection: 2

F. Identification of Person submitting request (name, title, phone, fax, email, etc.):
R. JAW Stouky, Project Manager, 804 938 1261

Permission for Work Authorization and Entry is approved based on information submitted above, subject to the following conditions: SEE FORM F-2 ENTRY REQUIREMENTS IN DRESS CODE

| | |
|---------------------------------|--------------|
| Signature: <i>R. JAW Stouky</i> | Date: 4-8-05 |
|---------------------------------|--------------|

| | | |
|----------|--|------------------|
| Form F-2 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Entry Instructions and Requirements | Date: 4-11-05 |
|----------|--|------------------|

INSTRUCTIONS AND REQUIRMENTS FOR ENTRY INTO RADIATION CONTROL AREAS AND COMPARTMENTS

A Work Authorization Request (Form F-1) must be submitted and approved prior to entry into any Radiation Control Areas aboard the N/S SAVANNAH. Control Areas are defined as any space, compartment, or area designated as a Radiation Area due to the presence of radioactivity, radiation sources, residual radioactivity, or radioactive contamination in the space or on equipment, in systems, etc. These areas are posted with the appropriate radiation caution signs. Entry into Control Areas should be made with the minimum number of persons required to perform the work or inspection. Time required to perform work or inspections should be as short as possible to prevent unnecessary radiation exposure to personnel.

| | |
|---|--|
| A. Compartment or space to be entered: <i>HOT ITEM LAB - NEXT TO CONTROL ROOM DECK PORT SIDE</i> | B. Date and time entered: <i>4-11-05 11:10 AM</i> |
|---|--|

C. Protective Clothing Shall be worn as follows:

| | |
|--|--|
| 1. Anti-C Suits (coveralls)..... <input checked="" type="checkbox"/> | 2. Shoe Covers <input checked="" type="checkbox"/> |
| 3. Gloves <input checked="" type="checkbox"/> | 4. Respirators <input checked="" type="checkbox"/> |
| 5. Hoods (head cover) | 6. |

D. Personnel Dosimeters Shall be worn by each worker: YES NO

E. Record of Personnel Exposure Shall be maintained : YES NO
 (Maintain Personnel Exposure Record on form C-1)

F. Record of Numbered Security Seals:

Number on seal removed: _____ Removed By: _____

Number on seal installed: _____ Installed By: _____

G. Other Information: *FRISK UPON EXIT, HANDS & FEET. RESPIRATORY PROTECTION.*

SEARCH

PERSONNEL SIGN ON:
James H. [Signature]

*4-11-05 AREA CLEAR
 NO REQUIREMENTS FOR ENTRY EXCEPT DOSIMETRY*

[Signature]

4-25-05 PROJECT ON TRACK, RUP CLOSED.

[Signature]

| | | |
|----------|---|-------------------------|
| Form F-1 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Work Authorization Request | Date: <i>4-11-05</i> |
|----------|---|-------------------------|

**REQUEST FOR WORK AUTHORIZATION
AND ENTRY INTO RADIATION CONTROL AREA**

| | |
|------------------------------|-------------------------------|
| To: RADIATION SAFETY OFFICER | From: <i>R. Jon Stouky</i> |
|------------------------------|-------------------------------|

| | |
|--|---|
| A. Compartment or space to be entered: <i>HOT CHEM LAB - NEXT TO CONTROL ROOM</i> | B. Date(s) to be entered: <i>4-11-05</i> |
|--|---|

| |
|--|
| B. Reason for entry (type work or inspection to be performed, etc): <i>INSPECTION OF ARRA, SMIRAL SURVAY, FALSIK SURVAY, DOSE RATE SURVAY</i> |
|--|

| |
|--|
| D. Material, equipment, machinery, parts, components, etc. to be removed: <i>None</i> |
|--|

| |
|---|
| E. Number of personnel required to perform work or inspection: <i>1</i> |
|---|

| |
|---|
| F. Identification of Person submitting request (name, title, phone, fax, email, etc.): <i>R. Jon Stouky, Project Manager, 204 938 1261</i> |
|---|

| |
|--|
| Permission for Work Authorization and Entry is approved based on information submitted above, subject to the following conditions: <i>RESPIRATORY PROTECTION</i> |
|--|

| | |
|---------------------------------|----------------------|
| Signature: <i>R. W. Bennett</i> | Date: <i>4-11-05</i> |
|---------------------------------|----------------------|

| | | |
|----------|---|-----------------|
| Form F-1 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Work Authorization Request | Date: 4-5-05 |
|----------|---|-----------------|

**REQUEST FOR WORK AUTHORIZATION
AND ENTRY INTO RADIATION CONTROL AREA**

| | |
|------------------------------|-------------------------|
| To: RADIATION SAFETY OFFICER | From: R. Jans Stouky |
|------------------------------|-------------------------|

A. Compartment or space to be entered:
COLD CHEM LAB C DIECK, PORT

B. Date(s) to be entered:

B. Reason for entry (type work or inspection to be performed, etc):
INSPECTION, FRISK SURVY, SMERN SURVY, AND DOSE RATE SURVY

D. Material, equipment, machinery, parts, components, etc. to be removed:
NONE

E. Number of personnel required to perform work or inspection: 3

F. Identification of Person submitting request (name, title, phone, fax, email, etc.):
Project Manager (804) 932-1261 / jstouky@aol.com

Permission for Work Authorization and Entry is approved based on information submitted above. subject to the following conditions: SHOE COVER & GLOVES SOP F-W EXIT FRISK HANDS & FEET UPON EXIT

Signature: *Robert Linn*

Date: 4-5-05

| | | |
|----------|--|------------------|
| Form F-2 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Entry Instructions and Requirements | Date: 4-15-05 |
|----------|--|------------------|

INSTRUCTIONS AND REQUIRMENTS FOR ENTRY INTO RADIATION CONTROL AREAS AND COMPARTMENTS

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| | |
|---|--|
| A. Compartment or space to be entered: <i>PRIMARY & SECONDARY CONTAINMENT</i> <i>ALL LEVELS</i> | B. Date and time entered: <i>4-15-05 TO CLOSE</i> |
|---|--|

C. Protective Clothing Shall be worn as follows:

| | |
|--|--------------------------------|
| 1. Anti-C Suits (coveralls)..... <u>NA</u> | 2. Shoe Covers <u>NA</u> |
| 3. Gloves <u>NA</u> | 4. Respirators <u>NA</u> |
| 5. Hoods (head cover) <u>NA</u> | 6. <u>NA</u> |

D. Personnel Dosimeters Shall be worn by each worker: YES NO

E, Record of Personnel Exposure Shall be maintained : YES NO
 (Maintain Personnel Exposure Record on form C-1)

F. Record of Numbered Security Seals:

Number on seal removed: N/A Removed By: _____

Number on seal installed: _____ Installed By: _____

G. Other Information:

AVOID RADIATION AREAS & POSTED CONTAMINATION

AREA: _____

PERSONNEL SIGN ON:

John D. Williams *James H. Randall* *Robert R. Runko*

John D. Williams *James H. Randall* *Robert R. Runko*

John D. Williams *James H. Randall* *Robert R. Runko*

*4-25-05 PROJECT COMPLETE
RWP CLOSED
Robert Runko*

| | | |
|----------|---|------------------|
| Form F-1 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Work Authorization Request | Date: 4-15-05 |
|----------|---|------------------|

**REQUEST FOR WORK AUTHORIZATION
AND ENTRY INTO RADIATION CONTROL AREA**

| | |
|------------------------------|--------------------------------|
| To: RADIATION SAFETY OFFICER | From: <i>R. Jon Stoukey</i> |
|------------------------------|--------------------------------|

| | |
|---|---|
| A. Compartment or space to be entered: <i>PRIMARY & SECONDARY CONTAINMENT ALL LEVELS</i> | B. Date(s) to be entered: <i>4-15-05 TO CLOSE OF CONTAINMENT</i> |
|---|---|

B. Reason for entry (type work or inspection to be performed, etc):
CORR BOAR SAMPLING, INSPECTION AND POSTING

D. Material, equipment, machinery, parts, components, etc. to be removed:
MATERIALS TAKEN INTO CONTAINMENT:

E. Number of personnel required to perform work or inspection: *8*

F. Identification of Person submitting request (name, title, phone, fax, email, etc.):
JON Stoukey PM (804) 938-1261

Permission for Work Authorization and Entry is approved based on information submitted above, subject to the following conditions: *DOSIMETRY REQUIRES*

| | |
|---------------------------------|----------------------|
| Signature: <i>R. W. Penning</i> | Date: <i>4-15-05</i> |
|---------------------------------|----------------------|

| | | |
|----------|---|-----------------|
| Form F-1 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Work Authorization Request | Date: 4-4-05 |
|----------|---|-----------------|

**REQUEST FOR WORK AUTHORIZATION
AND ENTRY INTO RADIATION CONTROL AREA**

| | |
|------------------------------|-------------------------------|
| To: RADIATION SAFETY OFFICER | From: <i>John W. Bowen</i> |
|------------------------------|-------------------------------|

A. Compartment or space to be entered: *FAN Room
B DECK ACROSS FROM STAIR B-1
STARBOARD SIDE*

B. Date(s) to be entered:
4-4-05

B. Reason for entry (type work or inspection to be performed, etc):
INSPECTION, SMIBARS SURVY, D.P. SURVY, FRISKING.

D. Material, equipment, machinery, parts, components, etc. to be removed:
NONE

E. Number of personnel required to perform work or inspection: *2*

F. Identification of Person submitting request (name, title, phone, fax, email, etc.):
*John Bowen, Proj. Engineer
804. 615. 1118 (ph)
804. 789. 1576 (F)
john-bowen@wpi.biz*

Permission for Work Authorization and Entry is approved based on information submitted above, subject to the following conditions:
GLOVES & SHOE COVERS AS DETAILED ON "ENTRY INSTRUCTIONS AND REQUIREMENTS" Form F-2

Signature: *Robert P. Linnick*

Date: *4-4-05*

4-15-05 RWP CLOSED
Robert P. Linnick

| | | |
|----------|--|-----------------|
| Form F-2 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Entry Instructions and Requirements | Date: 4-4-05 |
|----------|--|-----------------|

**INSTRUCTIONS AND REQUIRMENTS FOR ENTRY INTO
RADIATION CONTROL AREAS AND COMPARTMENTS**

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| | |
|---|--|
| A. Compartment or space to be entered: <i>HP LAB A/DIEIC AT HOSPITAL</i> | B. Date and time entered: <i>4-6-05</i> |
|---|--|

C. Protective Clothing Shall be worn as follows:

- | | |
|---|--|
| 1. Anti-C Suits (coveralls)..... _____ | 2. Shoe Covers <input checked="" type="checkbox"/> |
| 3. Gloves <input checked="" type="checkbox"/> | 4. Respirators _____ |
| 5. Hoods (head cover)..... _____ | 6. _____ |

D. Personnel Dosimeters Shall be worn by each worker: YES NO _____

E. Record of Personnel Exposure Shall be maintained : YES NO _____
(Maintain Personnel Exposure Record on form C-1)

F. Record of Numbered Security Seals:

Number on seal removed: NA Removed By: _____
Number on seal installed: _____ Installed By: _____

G. Other Information: *FRISK upon EXITING - HANDS & FEET AT S.O.P.*
4-7-05 LAB CLEARED FOR ENTRY WITHOUT DRESS
OUT a DOSIMETER - CONTAMINATED SINK ONLY
PERSONNEL SIGN ON *DO NOT OPERATE COVER*
Robt Linnach *Robt Linnach*
Buy 2 Ant *John E. ...* *Leo ...*

4-12-05 RWP CLOSED - Room CLEARED EXCEPT
FOR SINK
Robt Linnach

| | | |
|----------|---|-----------------|
| Form F-1 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Work Authorization Request | Date: 4-4-05 |
|----------|---|-----------------|

**REQUEST FOR WORK AUTHORIZATION
AND ENTRY INTO RADIATION CONTROL AREA**

| | |
|------------------------------|----------------------------|
| To: RADIATION SAFETY OFFICER | From: <i>John Bowen</i> |
|------------------------------|----------------------------|

| | |
|--|--|
| A. Compartment or space to be entered: <i>HP LAB A DECK AT HOSPITAL</i> | B. Date(s) to be entered: <i>4-4-05</i> |
|--|--|

B. Reason for entry (type work or inspection to be performed, etc):
INSPECTION, FRISKING, SMEAR SURVEY, AND DOSE RATE SURVEY

D. Material, equipment, machinery, parts, components, etc. to be removed:
None

E. Number of personnel required to perform work or inspection: *2*

F. Identification of Person submitting request (name, title, phone, fax, email, etc.):
John Bowen, Proj. Engineer
NWS 4/4/05
(Ph) 804.787.615.1118
(F) 804.789-1576
john-bowen@wpi.biz

Permission for Work Authorization and Entry is approved based on information submitted above, subject to the following conditions: *AS DETAILED ON "ENTRY INSTRUCTIONS AND REQUIREMENTS"*
FORM F-2

| | |
|---------------------------------|---------------------|
| Signature: <i>Robert P. ...</i> | Date: <i>4-4-05</i> |
|---------------------------------|---------------------|

| | | |
|----------|--|-----------------|
| Form F-2 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Entry Instructions and Requirements | Date: 4-4-05 |
|----------|--|-----------------|

INSTRUCTIONS AND REQUIRMENTS FOR ENTRY INTO RADIATION CONTROL AREAS AND COMPARTMENTS

A Work Authorization Request (Form F-1) must be submitted and approved prior to entry into any Radiation Control Areas aboard the N/S SAVANNAH. Control Areas are defined as any space, compartment, or area designated as a Radiation Area due to the presence of radioactivity, radiation sources, residual radioactivity, or radioactive contamination in the space or on equipment, in systems, etc. These areas are posted with the appropriate radiation caution signs. Entry into Control Areas should be made with the minimum number of persons required to perform the work or inspection. Time required to perform work or inspections should be as short as possible to prevent unnecessary radiation exposure to personnel.

| | |
|--|---|
| A. Compartment or space to be entered: <i>PORT & STARBOARD STABILIZER Rm 14 FLNT DECK</i> | B. Date and time entered: <i>4-4-05 9:55 AM / 4-5-05 12:15</i> |
|--|---|

C. Protective Clothing Shall be worn as follows:

| | |
|---|--|
| 1. Anti-C Suits (coveralls)..... | 2. Shoe Covers..... <input checked="" type="checkbox"/> 1 PR |
| 3. Gloves..... <input checked="" type="checkbox"/> 2 PR | 4. Respirators..... |
| 5. Hoods (head cover)..... | 6. |

D. Personnel Dosimeters Shall be worn by each worker: YES NO

E, Record of Personnel Exposure Shall be maintained : YES NO
 (Maintain Personnel Exposure Record on form C-1)

F. Record of Numbered Security Seals:

Number on seal removed: *7602/7604* Removed By: _____

Number on seal installed: _____ Installed By: _____

G. Other Information:

SET UP STEP OFF PAD & FRISKER TO PERMIT CONTROLLED EXIT OF ROOM, FRISK FEET & HANDS UPON EXIT

PERSONNEL SIGN ON

Rob DePurmon

James E. Cudde

James H. Lovell

Th W. B.

Ed Hanellone

Scott

ROOMS FRISKED & STARBOARD CLEAN. SHOE COVER & GLOVES NO LONGER REQUIRED 4-4-05 1:07 PM RCP.

4-5-05 ROOMS CLEAR FOR ENTRY WITH NO DRESS OUT. DOSIMETRY REQUIRED FOR LOW LEVEL OF PORT STABILIZER. RCP

| | | |
|----------|--|------------------------|
| Form F-2 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Entry Instructions and Requirements | Date: <i>4-6-05</i> |
|----------|--|------------------------|

INSTRUCTIONS AND REQUIREMENTS FOR ENTRY INTO RADIATION CONTROL AREAS AND COMPARTMENTS

A Work Authorization Request (Form F-1) must be submitted and approved prior to entry into any Radiation Control Areas aboard the N/S SAVANNAH. Control Areas are defined as any space, compartment, or area designated as a Radiation Area due to the presence of radioactivity, radiation sources, residual radioactivity, or radioactive contamination in the space or on equipment, in systems, etc. These areas are posted with the appropriate radiation caution signs. Entry into Control Areas should be made with the minimum number of persons required to perform the work or inspection. Time required to perform work or inspections should be as short as possible to prevent unnecessary radiation exposure to personnel.

A. Compartment or space to be entered:
SECONDARY CONTAINMENT FROM HATCH ON "B" DECK

B. Date and time entered:
4-6-05 10:05 AM
4-7-05 8:50 AM

C. Protective Clothing Shall be worn as follows:

- | | |
|--|--|
| 1. Anti-C Suits (coveralls)..... <input checked="" type="checkbox"/> | 2. Shoe Covers <input checked="" type="checkbox"/> |
| 3. Gloves <input checked="" type="checkbox"/> | 4. Respirators <input checked="" type="checkbox"/> <i>PER H.P.</i> |
| 5. Hoods (head cover) | 6. |

D. Personnel Dosimeters Shall be worn by each worker: YES NO

E. Record of Personnel Exposure Shall be maintained : YES NO
 (Maintain Personnel Exposure Record on form C-1)

F. Record of Numbered Security Seals:

Number on seal removed: *7838* Removed By: *ROBT PENNOCK & PERMISSION FROM PROB SURFR*
 Number on seal installed: _____ Installed By: _____

G. Other Information: *FRISK HANDS & FEET UPON EXITING THESE PERSONS WITHOUT BODY FRISK ONCE OUT*
4-7-05 BASED ON SIMPSON & FRISK SURVEY SHOE COVER & GLOVE FOR UPON SECONDARY ENTRY WITH HAND & FOOT FRISK UPON WORK STILL REQUIRES FULL DRESS WITH HAND & FOOT FRISK ONLY FOR EXT. REP

PERSONNEL SIGN ON:
Robt Pennock 1488M 4/11
[Signature]
[Signature]
[Signature]
[Signature]
James Prauff

[Signature] *[Signature]*

4-12-05 RWP CLOSED - AREA CLEARED FOR ENTRY WITHOUT DRESSOUT - LOWER LEVEL HAS HIGH RAD AREA WHO IS CONTROLLED BY DIFFERENT RWP. Robt Pennock

| | | |
|----------|---|-----------------|
| Form F-1 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Work Authorization Request | Date: 4-6-05 |
|----------|---|-----------------|

**REQUEST FOR WORK AUTHORIZATION
AND ENTRY INTO RADIATION CONTROL AREA**

| | |
|------------------------------|---------------------------|
| To: RADIATION SAFETY OFFICER | From: R. Jones Stouley |
|------------------------------|---------------------------|

A. Compartment or space to be entered:
SECONDARY CONTAINMENT FROM HATCH
ON "B" DECK

B. Date(s) to be entered:
4-6-05
4-7-05

B. Reason for entry (type work or inspection to be performed, etc):
INSPECTION, FRISK SURVEY, SMEAR SURVEY, DOSE RATE SURVEY
PLUG REMOVAL AND HATCH OPENING. NO ENTRY

D. Material, equipment, machinery, parts, components, etc. to be removed:
NONE

E. Number of personnel required to perform work or inspection: 5

F. Identification of Person submitting request (name, title, phone, fax, email, etc.):
R. Jones Stouley, Project Manager 336 316 0707

Permission for Work Authorization and Entry is approved based on information submitted above, subject to the following conditions: SEE REQUIREMENTS ON FORM P-2-ENTRY INSTRUCTIONS
NO ENTRY UNTIL AIR SAMPLE IS TAKEN AND AREA CLEARED FOR ENTRY

| | |
|--|--------------|
| Signature:  | Date: 4-6-05 |
|--|--------------|

| | | |
|----------|---|------------------|
| Form F-1 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Work Authorization Request | Date: 4-12-05 |
|----------|---|------------------|

**REQUEST FOR WORK AUTHORIZATION
AND ENTRY INTO RADIATION CONTROL AREA**

| | |
|------------------------------|--------------------------|
| To: RADIATION SAFETY OFFICER | From: R. Jones Stouky |
|------------------------------|--------------------------|

| | |
|---|---------------------------|
| A. Compartment or space to be entered: LOWER HULL OF SECONDARY CONTAINMENT | B. Date(s) to be entered: |
|---|---------------------------|

B. Reason for entry (type work or inspection to be performed, etc):
CORE BORE SAMPLES

D. Material, equipment, machinery, parts, components, etc. to be removed:
SAMPLES

E. Number of personnel required to perform work or inspection: 4/

F. Identification of Person submitting request (name, title, phone, fax, email, etc.):
Roy Jones Stouky, PM, 804-538-1261

Permission for Work Authorization and Entry is approved based on information submitted above, subject to the following conditions: DOSIMETRY REQUIRED
MONITORING REQUIRED.

| | |
|---------------------------|---------------|
| Signature: Robert Kinnosh | Date: 4-12-05 |
|---------------------------|---------------|

4-15-05 RWP CLOSED
Robert Kinnosh

| | | |
|----------|--|-------------------------|
| Form F-2 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Entry Instructions and Requirements | Date: <i>4-12-05</i> |
|----------|--|-------------------------|

INSTRUCTIONS AND REQUIRMENTS FOR ENTRY INTO RADIATION CONTROL AREAS AND COMPARTMENTS

A Work Authorization Request (Form F-1) must be submitted and approved prior to entry into any Radiation Control Areas aboard the N/S SAVANNAH. Control Areas are defined as any space, compartment, or area designated as a Radiation Area due to the presence of radioactivity, radiation sources, residual radioactivity, or radioactive contamination in the space or on equipment, in systems, etc. These areas are posted with the appropriate radiation caution signs. Entry into Control Areas should be made with the minimum number of persons required to perform the work or inspection. Time required to perform work or inspections should be as short as possible to prevent unnecessary radiation exposure to personnel.

| | |
|---|---|
| A. Compartment or space to be entered: <i>LOWER LEVEL OF SECONDARY CONTAINMENT</i> | B. Date and time entered: <i>4-13-05 9:00 AM</i> |
|---|---|

C. Protective Clothing Shall be worn as follows:

| | |
|---|-------------------------------|
| 1. Anti-C Suits (coveralls)..... <u>—</u> | 2. Shoe Covers <u>—</u> |
| 3. Gloves <u>—</u> | 4. Respirators <u>—</u> |
| 5. Hoods (head cover) <u>—</u> | 6. <u>—</u> |

D. Personnel Dosimeters Shall be worn by each worker: YES NO

E. Record of Personnel Exposure Shall be maintained : YES NO
 (Maintain Personnel Exposure Record on form C-1)

F. Record of Numbered Security Seals:

Number on seal removed: _____ Removed By: _____

Number on seal installed: _____ Installed By: _____

G. Other Information: *DOSIMETRY AND MR meters Required for ENTRY.*

PERSONNEL SIGN ON:

Robert Linnoch
Plw. B.

Scott
Bryan J. [Signature]
[Signature]

| | | |
|----------|---|-----------------|
| Form F-1 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Work Authorization Request | Date: 4-6-05 |
|----------|---|-----------------|

**REQUEST FOR WORK AUTHORIZATION
AND ENTRY INTO RADIATION CONTROL AREA**

| | |
|------------------------------|-------------------------------|
| To: RADIATION SAFETY OFFICER | From: <i>R. Jon Stouky</i> |
|------------------------------|-------------------------------|

A. Compartment or space to be entered:
*PRIMARY CONTAINMENT FROM
SECONDARY CONTAINMENT*

B. Date(s) to be entered:

B. Reason for entry (type work or inspection to be performed, etc):
*INSPECTION, FRISK SURVEY (IF ABLE), DOSE RATE SURVEY, SIMILAR SURVEY
AND WORK PLANNING.*

D. Material, equipment, machinery, parts, components, etc. to be removed:
NONE EXCEPT WHAT IS TAKEN IN.

E. Number of personnel required to perform work or inspection: *6*

F. Identification of Person submitting request (name, title, phone, fax, email, etc.):
R. Jon Stouky, Project Manager, 804 238 1261

Permission for Work Authorization and Entry is approved based on information submitted above, subject to the following conditions: *NO ENTRY UNTIL AIR SAMPLE CLEARS CONTAMINANT AS NON DIABORNE OR RESPIRATORY PROTECTION REQUIRED. SEE REQUIREMENTS ON FORM F-2 - ENTRY INSTRUCTIONS. PRIMARY CONTAINMENT TO BE VENTILATED PRIOR TO AND WHILE DURING ENTRY*

Signature: *Robert Pennock*

Date: *4-6-05*

4-15-05 RWP CLOSED - REPLACED
Robert Pennock

| | | |
|----------|--|------------------------|
| Form F-2 | U.S. MARITIME ADMINISTRATION N/S SAVANNAH Entry Instructions and Requirements | Date: <i>4-6-05</i> |
|----------|--|------------------------|

INSTRUCTIONS AND REQUIRMENTS FOR ENTRY INTO RADIATION CONTROL AREAS AND COMPARTMENTS

A Work Authorization Request (Form F-1) must be submitted and approved prior to entry into any Radiation Control Areas aboard the N/S SAVANNAH. Control Areas are defined as any space, compartment, or area designated as a Radiation Area due to the presence of radioactivity, radiation sources, residual radioactivity, or radioactive contamination in the space or on equipment, in systems, etc. These areas are posted with the appropriate radiation caution signs. Entry into Control Areas should be made with the minimum number of persons required to perform the work or inspection. Time required to perform work or inspections should be as short as possible to prevent unnecessary radiation exposure to personnel.

| | |
|--|--|
| A. Compartment or space to be entered: <i>PRIMARY CONTAINMENT FROM SECONDARY CONTAINMENT</i> | B. Date and time entered: <i>4-11-05 CONTINUAL</i> |
|--|--|

C. Protective Clothing Shall be worn as follows:

| | |
|---|--|
| 1. Anti-C Suits (coveralls)..... <i>✓</i> | 2. Shoe Covers <i>✓ 2 PR</i> |
| 3. Gloves <i>✓ 2 PR</i> | 4. Respirators <i>✓ AS NECESSARY</i> |
| 5. Hoods (head cover) <i>✓</i> | 6. |

D. Personnel Dosimeters Shall be worn by each worker: YES NO

E. Record of Personnel Exposure Shall be maintained : YES NO
(Maintain Personnel Exposure Record on form C-1)

F. Record of Numbered Security Seals:

Number on seal removed: _____ Removed By: _____

Number on seal installed: _____ Installed By: _____

G. Other Information: *PRIMARY CONTAINMENT TO BE VENTILATED PRIOR TO AND DURING ENTRY. DRESS REQUIREMENTS AS ABOVE. FRISK HANDS & FEET AT EXIT TO PRIMARY CONTAINMENT, WHOLE BODY FRISK BEFORE EXITING AREA.*

PERSONNEL SIGN ON:

| | | |
|--------------------|--------------------|---|
| <i>Phy. B...</i> | <i>[Signature]</i> | <i>4-13-05</i> <i>PRIMARY 1ST LEVEL ONLY</i> <i>OPEN TO ACCESS WITH DOSIMETER ONLY.</i> |
| <i>[Signature]</i> | <i>[Signature]</i> | |
| <i>[Signature]</i> | <i>[Signature]</i> | |
| <i>[Signature]</i> | <i>[Signature]</i> | |