OFFICE LOCATIONS:
Amelia, LA
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Gulf Coast
INTERNATIONAL INSPECTION, INC.
(504) 868-5097

CORPORATE OFFICE
Station 1
Box 10267
Houma, LA 70363

September 26, 2000

SEP 27

United States
Nuclear Regulatory Commission
611 Ryan Plaza Dr.
Suite 400
Arlington, Texas 76011

Re: Pipeliner Camera

Attention: Chisti Hernandez

Dear Mrs. Hernandez

I am writing you this letter in reference to when we are unable to use a hose extension or a short crankout when performing Radiography on a pipeline barge in the Gulf of Mexico. Their only a few reasons why we would be unable to use extensions and crankouts and they are listed below:

- Barge is small and space is limited.
- When they lay more than one line at the same time.
- When the configuration of the pipe limits your space.

These are a few circumstances where the extensions can not be used. As you can see, the main reason is when your space is limited. If you have any questions please contact me at 1-800-317-5097.

Thanks,

Rory Bergeron
Radiation Safety Officer

ACCREDITED REGISTRAR ANSI-RAB

Quality Service • Quality People
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THE HARTFORD STEAM BOILER INSPECTION AND INSURANCE CO. 1866 ISO 9000 REGISTRATION

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GULF COAST INTERNATIONAL INSPECTION

PIPELINE PROCEDURE CHECK LIST

1. Checkout camera on correct Utilization Log.
2. Survey camera and record readings.(This will ensure source is in shielded position)
3. Check camera lock and assemble to ensure proper working condition.
4. Place camera in Model 6717/B(U)drum) to be transported.
5. Radioactive materials shipping papers shall be obtained for the source before transporting.
6. Survey canister and record your reading before loading into vehicle.
7. Container shall be placed in vehicle and physically secured to prevent shifting.
8. Vehicle survey shall be performed and recorded on the daily radiation job sheet.
9. Check calibrations on all equipment(survey meter, rate meter, dosimeter)
10. Check Camera keys for creaks and bends
11. When on barge: cameras are locked in darkroom when not visually supervised by authorized personnel.
12. Work area: ensure the pipe is not closer than 4 foot from the deck of the barge and not higher than 4 foot 6 inches.
13. Make calculations and barricades, signs, and alarms should be placed at a 1 mr mark.
14. Camera set-up: chains, binders, and safety line should be used to ensure the camera from falling off the pipe.
15. Connect crankout or hose to camera.(this will lengthen the distance between the camera and radiographer.
16. Instruct all barge personnel that the perimeter cannot be violated and will be strictly enforced.
17. Make a survey of the top and bottom deck to ensure your barricades are in the correct position and if any additional shielding is need.
18. Fill out survey sheet for everyday until job is complete and sources are returned to storage.
19. When job is complete: final survey is performed and recorded.
20. Place cameras into drums and prepare for transportation back to office.
21. The camera shall be secured in the vehicle and the vehicle surveyed prior to being transported back to office. (storage vault)
22. Upon arrival back at the storage facility, the camera shall be placed back into the storage vault and signed in on the utilization log.

DATE_____**COMPANY**_____

LOCATION_____**CONTRACTOR**_____

TECHNICIAN_____

MANAGER_____

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Gulf Coast
INTERNATIONAL INSPECTION, INC.
(504) 868-5097

CORPORATE OFFICE
Station 1
Box 10267
Houma, LA 70363

2 1 1999

December 15, 1999

U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011

Re: Louisiana License No. LA-7396-L01

Attention: Christi Hernandez or Binesh Tharakan

Dear Administrator,

I am submitting the additional information you have requested for the exemption request for the use of the Gamma/Spec Pipeliner Camera on lay barges in the Gulf of Mexico. We talked on the phone about three subjects that you needed more detailed information. I received your e-mail on December 09, 1999 and started my research. I hope the information listed below will help you render an exemption for the use of pipeliner devises on lay barges in the Gulf of Mexico. I have also submitted some additional information with this letter that you have requested. I have replied to your questions in the same order they appear on the letter I received on December 09, 1999.

- The first thing I will explain is a pipeline job from start to finish.
  Crew arrives at shop – Technician signs out camera & retrieves a decay chart for his records offshore on the barge – The technician will then retrieve the pipeliner camera from the source room with a survey meter – The camera will then be surveyed and the camera will then be checked and serviced to ensure lock and the camera assembly is in safe working condition – The camera is then placed in an approved drum/canister for transportation to the lay barge – when arriving on barge cameras are placed in the darkroom, remaining in the canister, and darkroom will be locked at all times when not visually supervised – Then a stall in between the last welding stall and the coating stall will be set-up for a job site – The pipe will be at least 4' from the floor of the barge and no higher than 4'6" to ensure that the heath and safety measures meet or exceed that of CFR 34.20. – After the job site is set-up calculations are made and barricades are put into place with radiation signs and alarms – The camera is then prepared for the pipeline – The camera will have changes and binders to fasten it to the pipe with a safety line connected from the camera to the pipe to guarantee the safety of the camera if the chains or binders fail – The camera will also equipped with a short crankout (5' to 7') if applicable or a rubber hose the same length with a stiff rod down the center will be connected to the camera to increase the distance between the camera and the radiographer – This will decrease the already low radiation dose even lower - When the first exposure is made a survey is performed to ensure that no additional shielding is needed(extending barricades, hanging lead shield walls, or sand bags if needed) – A survey sheet will be filled out and cameras will be surveyed daily – A radiation dose will be recorded for every radiographer on the job daily – After job is complete cameras placed back into canisters to be transported back to office – A final survey will be made and the camera will be placed back into source room .

  - When using the Spec-150 or Amersham 660B the collimator has only five half-value layers and the source travels through a seven-foot source tube unshielded. When using the Gamma/Spec pipeliner camera, the camera acts as the collimator and has about 18 or

19 half-value layers. Example of an exposure while using a Spec-150 or Amersham-660B with 100ci of IR-192, a five half-value layer collimator, 30 foot crank-out, and a seven foot source tube.

100ci X 5200 X .0003018 = 13.26mr/hr

This dose not take into account the exposure that the radiographer will receive while the source travels in the unshielded source tube. Nor dose it take into account exposure time.

Example of an exposure while using a Gamma/Spec pipeliner. Consider the pipeliner is shielded with about 18 or 19 half-value layers and the radiographer's whole body is about five to seven feet away from the camera. (Plus an arms length)

100ci X 5200 X .00030518 = /(5)2 = 6.347mr/hr

This exposure rate is not only safer for the radiographer, but also for all other personnel on the barge. Also, the 2mr "RESTRICTED AREA" barricade will be much smaller for the lack of space on a pipeline lay barge.

- Below is a list of additional safety measures Gulf Coast International Inspection performs on lay barges when performing radiography when using the pipeliner camera.

    1. Keep camera at least four foot from the deck of the barge. This will ensure the safety of personnel working inside the barge.
    2. The use of any additional shielding if needed to keep in compliance with all regulations.(extra barricades, hanging lead shield walls, and sand bags)
    3. The cameras are equipped with a crankout or a rubber hose to increase the distance between the radiographer and the camera to reduce the dose rate.

I hope the information I have submitted will help you with our request for exemption to use Gamma/Spec pipeliner devices on lay barges in the Gulf of Mexico. If you have any question please contact me at 1-800-317-5097 or you can page me at 1-504-853-9120.

Thanks,

Rory Bergeron
Radiation Safety Officer
Personnel Manager

OFFICE LOCATIONS:
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(504) 868-5097

DEC 07 1999

CORPORATE OFFICE
Station 1
Box 10267
Houma, LA 70363

December 02, 1999

U.S. Nuclear Regulatory
Commission Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-8064

Re: Louisiana License No. LA-7396-L01

Attention: Binesh Tharakan or Chrish Hernandez

Dear Administrator,

I am writing this letter to request an exemption from the NRC in order to use Gamma Pipeliner cameras on laybarges in Federal waters of the Gulf of Mexico while performing Radiography on pipelines.

I am going to list the reasons why it is necessary that Gulf Coast International Inspection receives an exemption for the pipeliner cameras.

- Gulf Coast employs approximately 125 Radiographers. Over 50 percent work strictly on laybarges using the Gamma/Spec Pipeliner camera. Gulf Coast would not be in existence without the use of the Gamma/Spec pipeline cameras used on pipelines in the Gulf of Mexico.
- The Gamma pipeliner Camera was invented strictly for the purpose to perform Radiography on pipelines. There is currently no alternative If someone would produce a self-locking pipeliner device that would meet all regulations and was approved by the NRC, Gulf Coast would gladly replace the Gamma/Spec Pipeliner Camera with the alternative .
- The Gamma/Spec pipeliner camera is the only device that will keep up with production on a laybarge and provide a safe working environment for radiographers and surrounding barge personnel.
- The space on a laybarge is limited. The Gamma/Spec pipeliner camera was designed to reduce the radiation dose when working in an area with limited space.
- When using the Spec-150 or Amersham 660B the collimator has only five half-value layers and the source travels through a seven-foot source tube unshielded. When using the Gamma/Spec pipeliner camera, the camera acts as the collimator and has about 18 or 19 half-value layers.
- Example of exposure while using a spec-150 or Amersham-660B with 100ci of Ir. 192, a five half-value layer collimator, 30 foot crank-out, and a seven foot source tube.

100 ci X 5200 X .03125 = 13.26mr/hr.

This does not take into account the exposure that the radiographers will receive while the source travels in the unshielded source tube. Nor does it take into account exposure time.

- Example of exposure while using a Gamma Pipeliner. Consider the Gamma Pipeliner is shielded with about 18 or 19 half-value layers and the radiographer's whole body is about five feet away from the camera.(plus an arms length)

100 ci X 5200 X .00030518 = / (5)2 =6.347mr/hr.

- This exposure rate is not only safer for the radiographer, but also for the other individuals on the barge. Also, the 2mr/hr "Restricted Area" barricade will be much smaller for the Gamma Pipeliner operations.

Gulf Coast International Inspection has always strived for excellence in **SAFETY**, SERVICE, and PEOPLE. We have one of the lowest EMR rates in the industry. We are proud of our safety record and will do anything to achieve a safe working environment for our radiographers and surrounding personnel. We at Gulf Coast think that the Gamma/Spec Pipeliner Camera is a safe device for what it was designed to do, radiograph pipelines on laybarges offshore. Gulf Coast has never had an over exposure or a lost time accident caused by a pipeliner camera. In general, we have worked over one-million man hours without a lost time accident. We also do some extras to reduce the radiation dose when working with a Gamma Pipeliner Camera and they are as follows:

- The camera is fastened to the pipe with chains and binders to prevent the camera from falling.
- A survey of the barge is made of the upper and lower deck to determine if sand bags or any other shielding is needed.
- Before setting up, select a stall that the pipe is no closer to the deck than four feet.
- Use a six foot crankout or a six foot hose connected to the on/off knob with a rod down the center to keep the hose stiff and straight. This will keep the radiographer a safe distance from the camera when performing the radiographs.
- The pipeliner cameras are always transported in a drum type canister purchased from SPEC or AEA Technology.

I hope this will help you render an exemption for the Gamma/Spec Pipeliner Camera to be used on pipeline laybarges in Federal waters of the gulf of Mexico.

If you have any question please contact me at 1-800-317-5097.

Thank you for your consideration in this matter.

Sincerely,

Rory Bergergon
Radiation Safety Officer

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CORPORATE OFFICE
Station 1
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Houma, LA 70363

November 16, 1999

NOV 17 1999

U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-8064
Attn: Regional Administrator

Re: Louisiana License No. LA-7396-LO1

Dear Mr. Or Ms. Administrator,

I am writing this letter to respectfully request an exemption from the NRC in order to use Gamma Pipeliners in Offshore waters while performing Radiography on pipelines. I will prove that use of the Gamma Pipeliner is the safest and most effective tool for radiography of pipelines. My reasoning goes as follows:

- One must consider that all three factors are involved in reducing radiation exposure. That is **Time, Distance** and **Shielding**.
- The reason that a unit such as a Spec 150 or Amersham 660B was created was to afford the radiographer portability when performing radiography in strange locations or while off of the ground. While performing radiography on a pipeline, the pipeline is continuously moved to the radiographers at waist height, so portability is not necessary.
- During a radiography procedure with a Spec 150 or Amersham 660B, the source is cranked through an unshielded 7 foot long source tube into a 5 half-value layer collimator. While using a pipeline device, the source is shielded by a minimum of 17 half-value layers and the source does not travel, which means it is not unshielded. Also, the radiographers will not have a disconnected source, or source trapped in a crimped source tube.
- Example of exposure while using a Spec 150 or Amersham 660 B with 100ci of Ir 192 , a 5 half-value layer collimator, 30 foot drive cable, and a 7 foot source tube:

  100 ci X 5200 X .03125 = / $(35)^2$ =13.26mr/hr.

This does not take into account the exposure that the radiographers will receive while the source travels in the unshielded source tube. Nor does it take into account exposure time.

- Example of exposure while using a Gamma Pipeliner. (Consider the Gamma Pipeliner is shielded with a very conservative 15 Half-Value Layers and the radiographer's whole body is conservatively 5 feet away from the source)

  100 ci X 5200 X .00030518 = / $(5)^2$ = 6.347mr/hr.
- This exposure rate is not only safer for the radiographer, but also for the other individuals on the barge. Also, the 2mr/hr "Restricted Area" barricade will be much smaller for the Gamma Pipeliner operations.

I feel that the use of the Gamma Pipeliner is safer than use of Spec 150 or Amersham 660B for radiography of pipelines, not only for the radiographer, but also for the general public. I also feel that requirements for the Spec 150 and Amersham 660B have been applied to the Gamma Pipeliner that should not apply.

Gulf Coast International Inspection should be granted an exemption for use of the Gamma Pipeliner on radiography operations of pipelines based on the fact that the Gamma Pipeliner is **Safer.** If you would like to discuss my calculations or any other factors concerning this issue, please feel free to call me at 1-800-317-5097.

Thank You for your consideration in this matter.

Sincerely,

Rory Bergeron
Radiation Safety Officer

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Ingleside, TX

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(504) 868-5097

CORPORATE OFFICE
Station 1
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Houma, LA 70363

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September 28, 1998

U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-8064
Attn: Regional Administrator

Re: Louisiana License No. LA-7396-LO1

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Thank You for your consideration in this matter.

Sincerely,

OCT 26

Kirk W. Gros
Radiation Safety Officer
Gulf Coast International Inspection