U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, D.C. 20590

NOV 0 5 2009

Mr. Bruce Wald
Vice President & Director
Image Information Solutions
1447 St. Paul Street
P.O. Box 60488
Rochester, NY 14606-0488

Dear Mr. Wald:

On August 5, 2009, you wrote to the Pipeline and Hazardous Materials Safety Administration (PHMSA) to request an interpretation of 49 C.F.R. § 192.706. You asked for clarification of requirements for the use of leak detection equipment for leakage surveys on natural gas transmission pipelines in Class 1 and Class 2 locations. Specifically, you asked:

1. Does OPS require the use of leak detector equipment in all Class Locations in order to meet the leakage survey requirements of § 192.706?
2. Does OPS require that each transmission pipeline be individually leak surveyed, frequency dependent on Class Location, in order to meet the requirements of § 192.706?
3. Does observing surface conditions on and adjacent to the transmission pipeline right-of-way for indications of leaks as required by § 192.705 meet the § 192.706 requirement for leakage surveys of transmission pipelines in any Class Location?

Our responses to your questions are as follows:

Response to Question 1
Periodic leakage surveys are a key part of pipeline safety. All gas transmission pipelines must have leakage surveys conducted annually, not to exceed 15 months utilizing commercially available and currently accepted industry leakage survey methods and equipment adequate to the purpose of identifying gas leaks. In addition, § 192.706 specifies that leak detection equipment be utilized to perform leakage surveys semi-annually in Class 3 and quarterly in Class 4 locations for lines not required to be odorized under § 192.625. However, § 192.706 does not specify a requirement to use leak detection equipment for Class 1 and Class 2 locations.

Therefore, under the current code language an operator could potentially utilize an alternate leakage survey method such as an over-the-line vegetation survey in Class 1 and Class 2 locations and for transmission lines with odor or odorant in Class 3 and Class 4 locations, but only if the operator can demonstrate that such a survey would be effective in identifying any leaks. This means that an over-the-line vegetation survey must be performed during the time of

year when vegetation is in its growth cycle (i.e., spring or summer) and the operator must be able to document that such a survey would be effective based on the time of year, weather conditions, ground visibility, soil conditions, location of the pipeline, etc. Even under these circumstances, additional leakage survey methods potentially involving leak detection equipment would be necessary in locations without vegetation cover such as road crossings, paved areas, dead soil areas with no vegetation, and other such areas.

Response to Question 2
Yes – under § 192.706 leakage surveys must be conducted for each transmission line.

Response to Question 3
As stated in our response to your first question, an operator could potentially utilize an alternate leak patrol method such as an over-the-line vegetation survey in Class 1 and Class 2 locations and for transmission lines with odor or odorant in Class 3 and Class 4 locations if it can be shown to be an effective means of patrolling for indications of leaks. Note that §§ 192.705 and 192.706 are separate requirements and operators must document compliance with both.

I hope that this information is helpful to you. If I can further assist you with this or any other pipeline safety regulatory matter, please contact me at (202) 366-4046.

Sincerely,

John A. Gale
Director, Office of Regulations

AUG 7 2009

ITT

Bruce Wald
Vice President & Director
Image Information Solutions

ITT Space Systems Division

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August 5, 2009

Mr. Jeff Wiese
Associate Director for Pipeline Safety
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Office of Pipeline Safety (PHP-1)
East Building, E22-326
1200 New Jersey Avenue, SE
Washington, DC 20590-0001

Re: Request for Letter of Interpretation of 49 CFR 192.706; clarification of leakage survey requirements for natural gas transmission pipelines in Class 1 and 2 Locations.

Dear Mr. Wiese:

We submit this request for a written interpretation of the federal pipeline safety regulation at 49 CFR 192.706, Transmission lines: Leakage surveys. It is submitted in compliance with §190.11(b)(1), Availability of Written Interpretations. We ask for clarification of the requirements for the use of leak detection equipment for leakage surveys on natural gas transmission pipelines in Class 1 and 2 locations.

ITT Space Systems, specifically our Airborne Natural Gas Emission Lidar (ANGEL) Services group, provides services to the natural gas pipeline community. Through this activity we have gained an appreciation for interaction between the U.S. Department of Transportation (DOT), Pipeline and Hazardous Materials Safety Administration (PHMSA), pipeline operators, trade associations, and the community at large. In order to best serve the market we need to understand both best practices and DOT regulations.

§192.706 could be read to require that leakage surveys, using leak detector equipment, be conducted in all Class Locations. It is also possible to infer that the rule only requires instrumented leakage surveys for select pipelines in Class 3 and 4 locations, leaving open the possibility that instrumented leakage surveys are not being performed in Class 1 and 2 areas.

We observe that PHMSA has stated that under 49 CFR 192 regulations, "Although vegetation surveys do not fulfill the requirements of the pipeline safety regulations, they may be used as a supplementary leak detection measure."

While under a development contract with PHMSA/Program Development, we had electronic correspondence with PHMSA/Regulations (see enclosure) and got the impression that there was an appreciation that this issue bears clarification. Therefore, we are now asking for a Letter of Interpretation of §192.706, including a response to the following questions:

1. Does OPS require the use of leak detector equipment in all Class Locations in order to meet the leakage survey requirements of §192.706?

2. Does OPS require that each transmission pipeline be individually leak surveyed, frequency dependent on Class Location, in order to meet the requirements of §192.706?

3. Does observing surface conditions on and adjacent to the transmission pipeline right-of-way for indications of leaks as required by §192.705, Transmission lines: Patrolling, meet the §192.706 requirement for leakage surveys of transmission pipelines in any Class Location?

Thank you for your consideration of this request. We look forward to your clarification of these important and timely regulatory issues.

Sincerely,

Bruce Wald

Enclosure: e-mail dated 04/06/2004 from Richard Huriaux, P.E., Manager Regulations, U.S. DOT Office of Pipeline Safety, to Daniel Brake, Kodak Active Imaging Services[1]

CC: Mr. John Gale
Director, Office of Regulations
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Office of Pipeline Safety (PHP-30)
East Building, E24-312
1200 New Jersey Avenue, SE
Washington, D.C. 20590-0001

Mr. Steven Fischer
Director, Program Development
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Office of Pipeline Safety (PHP-20)
East Building, E22-330
1200 New Jersey Avenue, SE
Washington, D.C. 20590-0001

1 ITT Corporation acquired the Kodak Remote Sensing Systems Division in August 2004, including the ANGEL Services business operations.

Enclosure: e-mail dated 04/06/2004 from Richard Huriaux, P.E., Manager Regulations, U.S. DOT Office of Pipeline Safety, to Daniel Brake, Kodak Active Imaging Services

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"Huriaux, Richard" <Richard.Huriaux@rspa.dot.gov>

04/06/2004 02:27 PM

To: Daniel Brake/434297/EKC@Kodak
cc: "Merritt, James" <James.Merritt@rspa.dot.gov>
Subject: RE: DOT/OPS Regulation Question

Here are the answers to your questions on 49 CFR 192.705 and 192.706. If you need further assistance, please contact me directly. I hope this is helpful.

(1) What is considered an acceptable "leak survey"? Is there a specific form that must be completed and/or specific actions that must be accomplished?

ANSWER: An acceptable "leak survey" is one which discovers and documents ALL leaks that are detectable with commercially available equipment. Modern leak detection equipment is, of course, capable of finding very small leaks that are not detectable by other means--such as by smell, vegetation damage, noise, earth disruption, etc. Leak detection can often be challenging. In saturated or frozen ground, under pavements, in impermeable clay soils, etc. a proper leak detection survey needs to take all reasonable steps to find leaks not just on the ground over the pipe, but in places escaping gas could reasonably migrate too--such as sewers, edges of paved areas, manholes, foundation wall/soil interfaces, telephone ducts, etc. Accessing such areas may require the use of bar holes and access to structures near the pipeline.

There is no specific form that must be completed to document leak surveys. However, 192.709(c) requires that "a record of each patrol, survey, inspection, and test required . . . must be retained for at least 5 years or until the next patrol, survey, inspection, or test is completed, whichever is longer." The form of the records required for leak surveying must be adequate to show that the required leak surveys were completed, who completed them on what dates, etc. And, of course the leak survey records must record all leaks discovered during the surveys.

(2) Reading the 192.706 regulation carefully, it could be inferred that non-odorized gas transmission pipelines must be surveyed with leak detection equipment only in class 3 and class 4. There is no specific indication that leak detection equipment must be used for class 1 and class 2. Am I correct in understanding the regulation or is this an area of ambiguity?

ANSWER: Leak detection must be performed using commercially available leak detection equipment at least once a year, at intervals not exceeding 15 months. In addition, 192.706 requires that surveys be performed at every 3 or 6 months in Class 4 and 3 areas. I agree the language needs fixing.

(3) If my reading is correct, and leak detection equipment is not required in class 1 and class 2, how does a "leak survey" (DOT/OPS 192.706) differ from "patrolling" (DOT/OPS 192.705) in these areas?

ANSWER: See (2).

##################################
/ Richard D. Huriaux. P.E.
/ Manager, Regulations
/ US DOT / Office of Pipeline Safety
/ 400 7th Street, SW, Room 7128
/ Washington, DC 20590
/ Tel: 202-366-4565
/ Fax: 202-366-4566
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-----Original Message-----
From: Merritt, James
Sent: Tuesday, April 06, 2004 11:03 AM
To: Huriaux, Richard
Subject: FW: DOT/OPS Regulation Question

Can you answer these questions from Kodak?

Jim Merritt
R&D Program Manager
Office of Pipeline Safety
U.S. Department of Transportation
office: 303-683-3117
mobile: 303-638-4758
fax: 303-346-9192
Email: james.merritt@rspa.dot.gov
Visit us at http://primis.rspa.dot.gov/rd/

-----Original Message-----
From: Israni, Mike
Sent: Friday, April 02, 2004 11:38 AM
To: Merritt, James
Subject: RE: DOT/OPS Regulation Question

Jim,
These are not Gas IMP rule related questions. So, please contact Richard Huriaux. He responds to Part 192 and Part 195 interpretations except for recent rulemakings.

Mike Israni
OPS

-----Original Message-----
From: Merritt, James
Sent: Friday, April 02, 2004 8:39 AM
To: Israni, Mike
Subject: FW: DOT/OPS Regulation Question

Mike,
I am working with Kodak while they develop an airborne leak detection system. They are trying to prepare the system for demonstration in late August at a test site and were trying to establish an understanding on the OPS regulations. Below are three questions that I can not answer for them. I'm hoping that either you can answer them or direct me to the correct person at OPS that could.

Please, advise

Jim Merritt

R&D Program Manager
Office of Pipeline Safety
U.S. Department of Transportation
office: 303-683-3117
mobile: 303-638-4758
fax: 303-346-9192
Email: james.merritt@rspa.dot.gov
Visit us at http://primis.rspa.dot.gov/rd/

-----Original Message-----
From: daniel.brake@kodak.com [mailto:daniel.brake@kodak.com]
Sent: Thursday, April 01, 2004 11:31 AM
To: Merritt, James
Subject: DOT/OPS Regulation Question

Hi Jim;
Hope this note finds you in good spirits.

I was hoping you could help me with a question I have regarding **DOT/OPS Regulation 192.706** (Leak Survey - Natural Gas Transmission Pipeline).
Here is the link to the reg:
http://a257.g.akamaitech.net/7/257/2422/04nov20031500/edocket.access.gpo.gov/cfr_2003/octqtr/49cfr192.706.htm

Can you help me answer the following questions:
(1) What is considered an acceptable "leak survey"? Is there a specific form that must be completed and/or specific actions that must be accomplished?

(2) Reading the 192.706 regulation carefully, it could be inferred that non-odorized gas transmission pipelines must be surveyed with leak detection equipment only in class 3 and class 4. There is no specific indication that leak detection equipment must be used for class 1 and class 2. Am I correct in understanding the regulation or is this an area of ambiguity?

(3) If my reading is correct, and leak detection equipment is not required in class 1 and class 2, how does a "leak survey" (DOT/OPS 192.706) differ from "patrolling" (DOT/OPS 192.705) in these areas?

I know you have a lot on your plate right now, so thanks for any help you can provide.

Dan Brake
Active Imaging Services, EK
(585) 253-6164
daniel.brake@kodak.com