

139 East Fourth Street, R. 25 At II P.O. Box 960 Cincinnati, Ohio 45201-0960 Tel: 513-419-1837 Fax: 513-419-1846 dianne.kuhnell@duke-energy.com

Dianne B. Kuhnell. Senior Paralegal

<u>VIA OVERNIGHT MAIL DELIVERY</u>

March 1, 2010

Docketing Division Public Utilities Commission of Ohio 180 East Broad Street Columbus, Ohio 43215

Re:

Case No. 09-974-EL-FAC

09-975-EL-RDR

Dear Docketing Division:

Enclosed please find for filing an original and twelve copies of the Application to Approve the Fuel Economy Purchased Power Component and the System Reliability Tracker Component; Duke Energy Ohio, Inc.'s Motion for Protective Order; Direct. testimony of Timothy J. Thieman and the Direct Testimony of William Don Wathen.

We are also enclosing an envelope containing the Confidential material to be filed under seal as referenced in the Motion filed concurrently.

Please file-stamp and return two copies in the envelope provided.

Should you have any questions, please contact me at (513) 419-1837.

Very truly yours,

Dianne Kuhnell

Senior Paralegal

Enclosure

This is to certify that the images appearing are an accurate and complete reproduction of a case file document delivered in the regular course of business Date Processed MAR 0 2 2015 ke-energy.com rechnician _



BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke)	
Energy Ohio, Inc. to Establish its Fuel and)	Case No. 09-974-EL-FAC
Economy Purchased Power Component of its)	
Market-Based Standard Service Office for)	
2009.)	
In the Matter of the Application of Duke)	
Energy Ohio, Inc. to Establish its System)	
Reliability Tracker of its Market-Based)	Case No. 09-975-EL-RDR
Standard Service Offer for 2009.)	

DIRECT TESTIMONY OF

TIMOTHY J. THIEMANN

ON BEHALF OF

DUKE ENERGY OHIO, INC.

March 2, 2010

TED-COCKETING DIS

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ATTACHMENTS:

- TJT-1 Confidential Zimmer Inventory Spreadsheet
- TJT-2 Wet Coal Handling Procedure
- TJT-3 Beckjord Policy

I. <u>INTRODUCTION</u>

- 1 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
- 2 A. My name is Timothy J. Thiemann. My business address is 139 East Fourth
- 3 Street, Cincinnati, Ohio 45202.
- 4 Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?
- 5 A. I am employed by Duke Energy Business Services, Inc. as General Manager,
- 6 Generation Services, Non-Regulated.
- 7 Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL
- 8 BACKGROUND.
- 9 A. I received a B.S. in Mechanical Engineering Technology from the University of
- 10 Cincinnati. In addition, during the past twenty-three years, I have attended
- 11 many seminars, workshops and forums on subject matters such as power plant
- maintenance and generation-specific technical training as well as other utility
- related topics. I began my career as a co-operative education student at The
- 14 Cincinnati Gas and Electric Company (CG&E) Miami Fort Station in 1986. In
- 15 1987, I became a full-time employee in the capacity of a Cadet Engineer at East
- Bend Station. Over the next several years, I was promoted through several of
- the staff engineering classifications. I worked at East Bend Station for
- approximately nine years. During that time, I performed various functions
- 19 including Work Management Coordinator, Boiler and Turbine Maintenance
- 20 Liaison, Outage Coordinator, Maintenance and Operations Engineer. I also
- 21 worked at W. H. Zimmer Station in a staff engineering capacity during the unit
- start up for about one year.

In 1995, I was promoted to Superintendent of Production Projects at our			
Gibson Generating Station. In this position, I was responsible for all			
maintenance and outage projects in the plant as well as managing the contractor			
maintenance work force. Toward the end of 1996, I was in the temporary			
position of an Investment Engineer working on a new capital allocation and			
justification system for the generation plants within Cinergy Corp., the parent			
company of CG&E. During this time, I also held the position of Production			
Coordinator at Fast Rend Station			

In 1997, I left Cinergy Corp. and took a position at Enerfab Corporation where I managed an Industrial Maintenance Division. In this position, I was responsible for the profitability of the division as well as providing technical direction and support at various industrial sites where we performed contractor work.

In 1999, I returned to Cinergy Corp. as a project engineer responsible for rebuilding gas turbines. I was promoted to Engineering Manager in 2000, with responsibility for all capital projects at the East Bend Generating Station, Miami Fort Station and the Combustion Turbine Fleet. In 2001, I became the Production Manager at Miami Fort Station. I was responsible for the safe and efficient operations of all the units at the plant. In 2004, I was promoted to General Manager II at Miami Fort Station. In this position, I had responsibility for the safety, financial, environmental and efficient operations of the plant. In October of 2008, I became General Manager, Duke Energy Business Services, Non-Regulated.

- 1 Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS GENERAL
- 2 MANAGER GENERATION SERVICES, NON-REGULATED.
- 3 A. I am responsible for managing services that support Duke Energy Ohio, Inc.'s
- 4 (Duke Energy Ohio or the Company) generation operations including:
- 5 responsibility for long-term maintenance outage scheduling, fleet measures
- 6 development and support, work management practices, generating station
- 7 financial management and business planning, management of long-term service
- 8 contracts and responsibility for the Joint Owned Units.

II. PURPOSE OF TESTIMONY

- 9 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS
- 10 **PROCEEDING?**
- 11 A. The purpose of my testimony is to discuss the Company's compliance with
- 12 certain audit recommendations contained in the Stipulation reached by
- participants in Duke Energy Ohio's last Rider FPP audit in Case No 07-974-EL-
- 14 UNC.

III. DISCUSSION OF STIPULATION COMMITMENTS

- 15 Q. PLEASE LIST THE STIPULATION COMMITMENTS YOU ARE
- 16 **ADDRESSING.**
- 17 A. I address the Company's compliance with the Stipulation provisions that affect
- Duke Energy Ohio's plant operations. More specifically, I respond to
- 19 Stipulation Paragraphs 10, 12, 13, 14, 15, 17, 18, and 19.

O. PLEASE DESCRIBE STIPULATION PARAGRAPI	Н 10.
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- 2 A. Paragraph 10 states that "Duke Energy Ohio shall "form a multi-disciplined task
- 3 force to evaluate the consistent variation in coal inventory at the Zimmer Station
- 4 where book inventory has been greater than measured physical inventory since
- 5 1995." Duke Energy Ohio committed to report the results of this investigation
- 6 as part of its 2010 Rider PTC-FPP annual filing.

7 Q. HAS DUKE ENERGY OHIO FORMED THE MULTI-DISCIPLINED

8 TASK FORCE TO EVALUATE THE ZIMMER COAL SUPPLY

9 **VARIATION?**

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- 10 A. Yes. Duke Energy Ohio organized a multi-disciplined task force to examine the
- issue. The task force included expertise in Station Operation, Material Handling,
- 12 Corporate Engineering that supports the physical inventory adjustments Coal
- 13 Origination, Fuel Supply Management and Coal Settlement and Accounting
- Management. The team assembled included personnel spanning the beginning
- of the coal handling process to the end (i.e., barge to bunker).

16 Q. WHAT WAS THE RESULT OF THE TASK FORCE'S EVALUATION?

- 17 A. In reviewing the physical inventory calculations for 2008, an error was
- 18 discovered. The volume on the low sulfur pile at Zimmer Station was not
- 19 updated from 2007. After correcting that volume number, the physical
- 20 inventory for Zimmer was determined to be within 1.63% of the book value.
- 21 More importantly, the physical inventory was greater than the book inventory
- for 2008. This reverses the trend that prior auditors have noted. Therefore, after
- taking the actions responding to the audit recommendations, the 2006 and 2008

physical inventories we	re within a 3% tolerance.	The 2007 result was slightly
outside of that range at	4.42%.	

Also noted was another factor that tended to skew the data. The methodology Duke Energy Ohio uses allows for an adjustment of 50% of the variance between physical inventory and book inventory. Consequently, a large variance in one year can skew the results for several years to come. A spreadsheet was prepared showing the variance between book and physical inventory assuming 100% of the difference was adjusted. That spreadsheet analysis shows that there is not a consistent bias reporting book inventory greater than physical inventory when a 100% correction is made. A copy of the spreadsheet is included as Confidential Attachment TJT-1. Duke Energy Ohio's engineering group is working on developing a Company-wide policy that is consistent on performing the physical inventory and making adjustments.

The variance between physical and book inventory at Zimmer Station has decreased over time and has now reversed the trend falling below the 3% tolerance. Forward yearly trends will be reviewed and documented as part of the inventory adjustment procedure.

Q. PLEASE DESCRIBE STIPULATION PARAGRAPH 12.

Paragraph 12 states that Duke Energy Ohio will institute an aggressive housekeeping program at the Zimmer Station's coal handling areas and will report for each of the audit periods provided for in the existing Electric Security Plan (ESP) on actions taken and results of regular inspections by station

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1	management to Parties as part of the testimony in its annual Rider PTC-FPI
2	audit.

Q. PLEASE DESCRIBE THE COMPANY'S ACTIONS PURSUANT TO THIS COMMITMENT.

As a result of the concern on coal yard housekeeping, station management has implemented a strategy that focuses on cleaning up the coal yard and maintaining a high standard of cleanliness. As a result of the commitment, the Company has dedicated resources to support the cleanliness strategy. Sunbelt, a company that provides labor for cleaning, is utilized throughout the coal yard as directed by coal yard supervision to clean problem areas. Zachry Maintenance has been hired to assist in performing routine and preventative maintenance to decrease coal spillage and identify equipment system problems before they become a housekeeping concern.

The addition of these resources has resulted in a notable improvement in coal yard housekeeping. These resources are used during the day shift through the week. The Company is also considering additional resources to assist coal yard operating teams. These resources are expected to further improve the cleanliness of the coal yard. As this strategy implementation develops, I expect that the housekeeping at the Zimmer Station will improve to a point that it is no longer a concern.

21 Q. PLEASE DESCRIBE STIPULATION PARAGRAPH 13.

A. Paragraph 13 requires Duke Energy Ohio to file a multi-year boiler recovery plan with the Public Utilities Commission of Ohio. The prioritized plan shall

Α.

- 1 address boiler related problems that are the major contributor to outages at Duke
- 2 Energy Ohio's generating units.

3 Q. DID DUKE ENERGY OHIO FILE THIS PLAN AS DIRECTED?

- 4 A. Yes. The Company filed its plan in this proceeding on or about January 28,
 5 2010. I hereby incorporate this filing by reference. The recovery plan lists the
 6 various projects by year through 2019. It includes projected costs and outage
 7 dates. Given that the plan includes multiple projects at different generating
 8 units, and extends over several years, the Company recognizes that factors may
 9 arise that could cause a change in the priority of the projects listed or new
- projects being created. Therefore, Duke Energy Ohio reserves the right to
- amend the plan and if there is a material change, the Company proposes to
- update its boiler plan filing in future Rider PTC-FPP proceedings.

13 Q. PLEASE DESCRIBE STIPULATION PARAGRAPH 14.

- A. In Paragraph 14, Duke Energy Ohio committed to work with co-owners of
 generating units not operated by Duke Energy Ohio and use its best efforts to
 achieve consistent generation availability data system (GADS) reporting for
 both Duke Energy Ohio operated and non-operated units as well as understand
- and document the differences between them.

19 Q. HAS DUKE ENERGY OHIO COMPLIED WITH THIS COMMITMENT?

20 A. Yes. The Company initiated discussions with the co-owners of the joint 21 operating units (Columbus Southern Power and Dayton Power and Light) 22 (collectively, the Joint Owners) of the co-owned units. The purpose of the 23 discussion was to review the North American Electric Reliability Corporation

(NERC) GADS definitions to ensure there is consistent interpretation of the
NERC event types and to develop and implement a plan that promotes
consistency among the three companies with respect to GADS reporting. The
call resulted in a plan to reduce/eliminate the inconsistencies, as well as paving
the way for the three companies to timely resolve the inconsistencies real time
instead of after the fact. Each company has their own business reasons for
reporting and classifying an outage. However, the three companies agree that
there is a need to hold true to the NERC GADS definitions for planned outages,
maintenance, and forced outages/derates whenever possible and to instill
consistency when deviation from NERC GADS guidelines is necessary.
The Joint Owners identified some of the nessible reasons for deviation from

The Joint Owners identified some of the possible reasons for deviation from the NERC GADS definitions including:

- The PJM eDART system does not have all of the event types listed that
 are included with the NERC GADS event types specifically planned
 outage extensions that will cause many inconsistencies;
- o In the PJM eDART system, a new outage must be created, or the original date of the outage must be extended manually instead of creating a planned outage extension. The old outage end date is lost; and
- Some outages may be marginal by nature as to whether they are deemed forced or maintenance outages. In cases like this, maintenance outage may be selected over forced outage as part of an economic decision. The rules for this vary between regional transmission organizations and in some cases lead to inconsistencies.

1	Going forward, the Joint Owners agree that all three companies need to be
2	consistent in their method for reporting NERC GADS. Although maintenance and
3	forced outages have a subjective aspect to them, each Joint Owner will strive to be
4	consistent in the coding of events including outages and derates. To provide insight
5	when a deviation is necessary, the Joint owners agree:

- o Planned outages shall be those listed in the official CD/CCD outage schedule;
- All three Joint Owners will review all maintenance outage requests and agree to the outage type beforehand;
- o Maintenance derates may be declared for any derate planned for next day

 (mill tests, valve checks, etc.); and
 - The unit status reports distributed daily between the Joint Owners (via e-mail) will include derate and outage types.

14 Q. PLEASE DESCRIBE STIPULATION PARAGRAPH 15.

In Paragraph 15, Duke Energy Ohio agreed to perform a survey of peer generating stations and develop an action plan to help address the situation where wet coal conditions exist at each Duke Energy Ohio plant. Duke Energy Ohio agreed to report on the progress of the survey and action plan development as part of this 2009 Rider PTC-FPP audit with the final plan available to the auditor selected for review during the 2010 Rider PTC-FPP audit period.

O. WHAT IS THE STATUS OF THIS COMMITMENT?

22 A. Duke Energy Ohio did perform the survey as agreed. The Company examined 23 the procedures at its Beckjord, Miami Fort and Zimmer Stations. The peer

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companies and generating units that were surveyed included Duke Energy Indiana's Gallagher Station, American Electric Power's Rockport and Tanners Creek Stations and Dayton Power and Light's Stuart and Killen Stations. From this survey, the Company has developed and implemented coal handling procedures for both the coal yard and the generating station. Attachment TJT-2 is a copy of Duke Energy Ohio's new wet coal handling procedure.

7 Q. PLEASE DESCRIBE STIPULATION PARAGRAPH 17.

Stipulation paragraph 17 involves improving certain conditions the previous auditor found unsatisfactory at the Beckjord Generating Station. In response to the audit concerns, Duke Energy Ohio committed to maintain high expectations for safety consciousness, cleanliness, and employee attitude at the Beckjord Station. Duke Energy Ohio agreed to identify and post all smoking areas for its employees at the Beckjord Station and to send written communication of the smoking and non-smoking designations to all Beckjord employees, further identifying the designated smoking areas. The Company also agreed to enforce the ban on smoking in non-smoking areas to rectify the concerns stated in the prior audit report. Duke Energy Ohio also committed to issue hard hats at the administration building of the Beckjord Station to persons not so equipped and to enforce the hard hat designation in required areas at its Beckjord Station.

20 Q. HAS DUKE ENERGY OHIO COMPLIED WITH THIS 21 REQUIREMENT?

22 A. Yes. Duke Energy Ohio developed and implemented a smoking policy for the 23 Beckjord Station and has marked the designated location at the Beckjord

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Station. Attachment TJT-3 is a copy of this policy. The policy was communicated to all Beckjord employees and is now used as part of new hire education. Duke Energy Ohio also issues hard hats, and other personal protective equipment (ear plugs, goggles, etc.) at its administration buildings for each of its generating stations. This is done at the time station visitors sign in. The Company has also modified the painting on the station asphalt to better designate the areas where employees and visitors can walk without hardhats.

8 Q. PLEASE DESCRIBE STIPULATION PARAGRAPH 18.

9 A. In Paragraph 18, Duke Energy Ohio agreed to provide further capital and operating and maintenance expense budget support beyond 2008 for Beckjord Station performance. The Company has complied with this requirement with and spent \$7 million over the \$50 million deferral authorized in the ESP Stipulation for an approximate total of \$57 million dollars at the Beckjord Station in 2009.

15 Q. PLEASE DESCRIBE STIPULATION PARAGRAPH 19.

A. Paragraph 19 requires Duke Energy Ohio to perform an economic market
analysis to determine the appropriate level of spare parts at each unit at Duke
Energy Ohio generating stations and the use of on-line maintenance/redundant
equipment at its generating stations.

20 Q. WHAT IS THE STATUS OF THIS RECOMMENDATION?

A. In December 2009, Duke Energy Ohio hired GAI Consultants to perform the analysis at the Company's generating stations. The project is underway and the Company expects the analysis to be completed by mid-2010.

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IV. <u>CONCLUSION</u>

- 1 Q. WERE ATTACHMENTS TJT-1, TJT-2, and TJT-3 PREPARED BY YOU
- 2 OR UNDER YOUR DIRECTION?
- 3 A. Yes.
- 4 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
- 5 A. Yes.

Expected

Difference

Variance

from

Due to only

adjusting a portion of

Adjustment 100%

the variance

Adjustment

Variance

Ledger

Fuel

Inventory

1999

2000

2001

2002

2003

2002

2006 2007

2008 2009

2004

1997 1998

1996

Physical



DUKE ENERGY MIDWEST GENERATION OPERATIONS (MGO) PROCEDURE			
MGO-XXX Wet Coal Handling Procedure Process/Program Owner: Duke Energy MGO Production Manager			
REVISION NUMBER	ISSUE DATE		
000	02/01/2010		
Mike Hofma	ed By/Date nn/01-XX-2010 neration Operations		
Bill J. Marsh	ued By: hall/01-XX-2010 tal Manager		
Effect	tive Date:		

02/01/2010

Wet Coal Handling Procedure

1. Purpose

The purpose of this procedure is to make sure the necessary action steps are taken during the handling of wet coal at Duke Energy Midwest Generated Operations generating facilities. Compliance with this procedure will help to ensure an adequate supply of coal to the boilers in order to avoid a derate condition at each of the generating facilities.

2. Scope

This program applies to Duke Energy Midwest Generated Operations coal fired generation facilities.

3. Roles and Responsibilities

- Production Manager is responsible for:
 - Implementing this procedure.
 - Creating site-specific procedures/guidelines and training to address wet coal conditions.
 - Ensuring compliance with the procedure.
 - Approving any operations outside this procedure
- 2. The Main Plant Coordinator and Production Team Supervisors are responsible for:
 - Ensuring action steps are taken by operations personnel to address wet coal conditions.
- 3. The Production Team Members are responsible for:
 - Ongoing monitoring of coal firing conditions.
 - Coordinate action steps concerning wet coal with the Material Handling Coordinator.
- 4. The Material Handling Coordinator is responsible for:
 - Ensuring action steps are taken by harbor vendor and coal yard personnel to address wet coal conditions.
- 5. The Production Team Members Material Handling are responsible for:
 - Daily monitoring of coal conditions and equipment in the Harbor and the Coal Yard.

4. Wet Coal Handling

1. Coal Yard

- a. The following action steps should be considered and appropriate steps taken to mitigate wet coal conditions.
 - Operations will not accept barges from the Harbor vendor with standing water greater than station specifications
 - ii. Rearrange our harbor to unload dryer barges first, use reclaim pile for coal supply, or remove excess water from barges to accelerate drying
 - iii. Utilize barge coal instead of reclaim coal if there are not any issues with the barge unloading system or barges in the harbor
 - iv. If the coal can be conveyed but may be too wet to fire, sending the wet coal out on our reclaim pile to drain and dry
 - v. Pack and slope coal reclaim pile to help drainage to minimize wet coal condition
 - vi. Place Coal Yard air cannon systems in service and verify their operation
 - vii. Operate Coal Yard bunker vibrators
 - viii. Add chemical to the coal as it is unloaded that keeps the coal from sticking together and plugging chutes, feeders, pipes, etc.
 - ix. Utilize more frequent inspections of conveyor systems and clean coal chutes as needed
 - x. Utilize additional help to clean out areas that are "plugging" due to the wet coal in order to keep the coal moving

2. Main Plant

- a. The following action steps should be considered and appropriate steps taken to mitigate wet coal conditions.
 - i. Place Main Plant air cannon systems in service and verify their operation
 - ii. Operate Main Plant bunker vibrators
 - iii. Change over the FD fans to 100% inside air on applicable units
 - iv. Place the air preheat coil system in service on applicable units
 - v. Increase mill outlet temperature set point if possible to help dry the coal
 - vi. Utilize the air heater gas recirculation dampers to increase the air heater air outlet temperatures on applicable units
 - vii. Close down on the SOFA dampers to force more air to the pulverizers
 - viii. Increase hot air temperature to the mills if capable to help dry coal
 - ix. Run additional mill(s) if the unit was designed with a spare mill(s) to decrease the throughput per mill and minimize handling/plugging issues
 - Reduce coal feed rates to the mills to decrease the throughput and minimize handling/plugging issues
 - xi. Utilize igniters and/or oil guns if needed to stabilize the fire in the furnace and to help with unit output
 - xii. Utilize additional help to clean out areas that are "plugging" due to the wet coal in order to keep the coal moving

Duke Energy Beckjord Station

Page 1 of 2
OPERATIONS AND
MAINTENANCE SITE PROCEDURES

SUBJECT: SMOKING POLICY

Revision#	Date	Summary	issued by:
1	10/11/09	Initial issue.	WCB

1 Purpose

This policy is established in order to reduce human exposure to environmental tobacco smoke.

2 Scope

This policy regulates smoking at Duke Energy Beckjord Station facilities and applies to all plant occupants.

3 References

None

4 Responsibilities

4.1 Plant Management

Management has the responsibility to ensure that this policy is communicating to all plant visitors, contractors and employees.

4.2 All Plant Personnel

Plant personnel are responsible to follow all practices as required by the policy.

5 SMOKING POLICY

Smoking is not permitted in any building on company property except in designated areas. Smoking is not permitted in company vehicles.

Smoking is not permitted on any plant roofs.

Outside smoking areas should not be located near doorways or ventilation intakes where smoke could be drawn inside the building.

There shall be no smoking in proximity to flammable liquids, explosives, or flammable gases. There shall be no smoking within 50 feet of gasoline, diesel and/or other fuel storage or dispensing equipment; hydrogen trailers; natural gas regulators; gas turbines; or hydrogen cooled generators.

Duke Energy Beckjord Station

Page 2 of 2 OPERATIONS AND MAINTENANCE SITE PROCEDURES

6 General information

- Duke Energy is not required to provide accommodations to smokers or to provide break-rooms for smokers or nonsmokers. However, if designated smoking areas are available, then they shall be clearly marked and non-combustible ashtrays shall be conveniently located.
 - Beckjord Station has designated smoking areas in the Coal Yard near the break area, outside of the Main Building on the east side between Units 3 and 4, outside of the Main Building on the east side of Unit 5, and outside of the Main Building near the storeroom dock.
- Dispose of all smoking materials properly, ensuring that they are fully extinguished and always use approved smoking receptacles when available.
- "No Smoking" signs will not be required to enforce this policy, but may be posted solely as a reminder. This policy is in force regardless of whether or not signs are posted.
- Failure of any employee to comply with this policy may result in disciplinary action as deemed appropriate by plant management.

7 Training

This policy shall be communicated to all new hires and as frequently as necessary to assure overall employee awareness of the policy.

This policy shall be included in the safety orientation given to all visitor and contractor personnel.

8 Record Keeping

The Company Representative (or instructor) will ensure that this policy has been explained to all new hires and visitors/contractors during the orientation process. All orientation sign-in sheets shall be maintained in the plant's central filing system.

9 Exhibits

None