




Valero Refinery Asphyxiation Incident

 Share

Accident Description

Accident: Valero Refinery Asphyxiation Incident

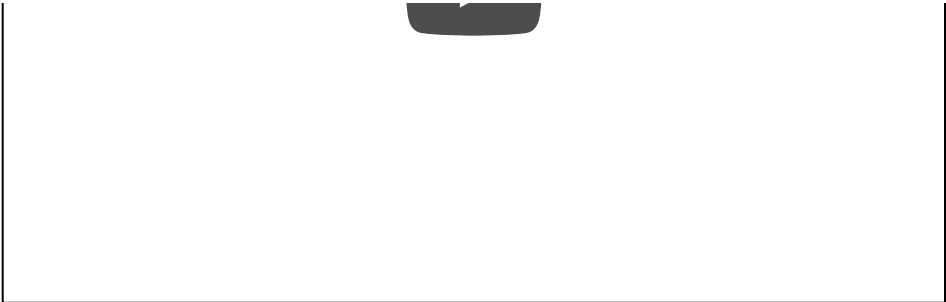
Location: Location: Delaware City, DE

Accident Occured On: 11/05/2005 | **Final Report Released On:** 11/02/2006

Accident Type: Confined Space / Asphyxiation

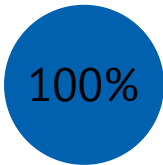
Investigation Status: The CSB issue a case study report and a safety video based on this incident at a news conference in Newark, Delaware, on November 2, 2006.

Two contract employees were overcome and fatally injured by nitrogen as they performed maintenance work near a 24-inch opening on the top of a reactor. One of the workers died attempting rescue.



808

TOTAL RECOMMENDATIONS # 8
OPEN RECOMMENDATIONS # 0
CLOSED RECOMMENDATIONS #



0 vs 100
TOTAL % OPEN VS. CL

Hazards of Nitrogen Asphyxiation
11/2/2006 5:00:00 AM

[VIEW ALL VIDEOS \(/VIDEOS/?SID=3520\)](/VIDEOS/?SID=3520)

Related Documents

Case Study (/assets/1/20/Valero_Case_Study.pdf?13836)

Statement of CSB Board Member John Bresland on CSB Investigation of Valero Delaware City Refinery (/assets/1/20/Valero_Statement.pdf?13837)

Related News

**CSB Releases Safety Video with Cor
Delaware, Nitrogen Asphyxiation Ir**
11/2/2006

(/csb-releases-safety-video-with-co
asphyxiation-incident-on-novembe

**CSB Issues Case Study in 2005 Vale
Inadequate Nitrogen Asphyxiation I
Rescue Actions**

11/2/2006
(/csb-issues-case-study-in-2005-va

[Inspector General \(/inspector-general/\)](/inspector-general/)

[Privacy Policy \(/privacy-policy/\)](/privacy-policy/)

[No Fear Act \(/disclaimers/no-fear-act/\)](/disclaimers/no-fear-act/)

[Legal/FOIA \(/disclaimers/legal-affairs-foia/\)](/disclaimers/legal-affairs-foia/)

[Performance and Accountability Reports \(/csb-performance-and-accountability-reports-/\)](/csb-performance-and-accountability-reports-/)

[Site Map \(/site-map/\)](/site-map/)

SAFETY

CSB: Valero Deaths Preventable

Better hazard awareness training and proper confined space rescue action could have prevented the deaths of two workers at a Valero Energy Corp. refinery in Delaware City, Del., according to the Chemical Safety and Hazard Investigation Board (CSB).

Katherine Torres

NOV 02, 2006



The agency, based on the evidence obtained by CSB investigators, surmised that one of the two workers – employed by Matrix Service Industrial Contractors – died as he climbed or fell into a reactor as he was attempting to retrieve a roll of duct tape during an overnight shift on Nov. 5, 2005.

entering such an environment can be expected to collapse into a coma in less than 40 seconds, with death through asphyxia following soon afterward, CSB said.

The other employee died when he was attempting to rescue his co-worker and was overcome by the oxygen-depleted atmosphere, CSB said.

"This accident is a telling example of improper entry into a confined space, and we found that workers are not adequately warned that hazardous atmospheres might exist around unsealed confined space openings," CSB Board Member John Bresland said.

CSB: Valero Workers Were Not Trained on Hazards of Low-Oxygen Atmospheres

CSB lead investigator John Vorderbrueggen said the agency determined that workers at Valero were not properly trained on the dangers of low-oxygen atmospheres around the unsealed openings of vessels and equipment that are undergoing purges with motionless gases such as nitrogen.

"The CSB Case Study on Valero underscores the importance of strict safeguards when working around low-oxygen environments," Vorderbrueggen said. "Workers are in danger not only inside confined spaces, but also around the opening where inert gases like nitrogen are flowing out."

CSB said it was unable to determine whether the workers knew that the reactor was under a nitrogen purge, but the agency believes the workers were knowledgeable about the rules covering confined space entry.

CSB found that there was a confined space warning sign posted with red warning tape wrapped around the steel bolts surrounding the reactor opening. However, the agency determined it was only after the accident that the company put up a barricade around the work area with a sign reading: "Danger – Nitrogen/Inert Gas Purge in Progress – Oxygen-Deficient Atmosphere – Do Not Pass This Point Without Authorization."

Valero Has Implemented CSB's Recommendations

recommendations outlined by [CSB], as well as many other measures to prevent any kind of recurrence in the future."

Valero was urged to conduct safe-work permit refresher training for those who prepare and approve confined space permits, and to conduct confined space control and inert gas purge procedure refresher training for all affected refinery personnel and contractors.

In addition, Valero, as well as Matrix Service Industrial Contractors and the American Petroleum Institute, all were urged to include critical information in training materials for workers, including emphasis that:

- Oxygen deprivation rapidly overcomes victims;
- There is no warning before being overcome;
- Oxygen-deficient atmospheres might exist outside confined space openings; and
- Rescuers must strictly follow safe rescue procedures.

CSB issued a safety bulletin on the hazards of nitrogen asphyxiation in 2003, which cited 80 deaths and 50 injuries from asphyxiation over a period of 10 years ending in 2002.

VOICE YOUR OPINION!

This site requires you to [login](#) or [register](#) to post a comment.

No comments have been added yet. Want to start the conversation?

LATEST IN SAFETY

Webinar: EHS Embraces the New Normal - What Thought Leaders Are Saying about the Trends, Challenges, and Priorities Facing EHS Practitioners in 2021

[Webinars](#)

Webinar: Seven Safety-Life Lessons from Psychological Science - How to Cultivate an Actively Caring for People Culture

[Webinars](#)

SPONSORED CONTENT

BSI Safety First in the Workplace: COVID-19 Readiness Guidelines

OCT 21, 2020

[Safety](#)

New Library Aims to Prevent Lab Accidents

OCT 21, 2020

[Industrial Hygiene](#)

Sign up for EHS Today eNewsletters

Email address

SIGN UP

WEBINARS

Webinar: EHS Embraces the New Normal - What Thought Leaders Are Saying about the Trends, Challenges, and Priorities Facing EHS Practitioners in 2021

A November 18 EHS Today-hosted webinar, sponsored by Intelex Technologies

Duration: 1 Hour**Event Type:** Live Webinar**Cost:** Free**Register Today!**

Description

In this hybrid presentation/panel discussion, our experts will discuss the challenges, trends, opportunities and priorities facing EHS professionals and the practice of EHS in 2021: what will be important, how the outcome of the election might or might not impact workplace safety and health, have priorities changed, what they should anticipate in terms of challenges, what EHS leaders can expect from OSHA both in terms of COVID and moving forward, etc.

Our speakers include AIHA President J. Lindsay Cook, MSPH, CIH, CSP, FAIHA, who will address the critical role of OEHS professionals during the pandemic and the lasting impact it will have on the profession. He also will address what the future of EHS might look like post-COVID and the impact of not having an assistant secretary of labor at OSHA. Attorney Howard Mavity is a partner in the Atlanta office of law firm Fisher Phillips. He is a member of the firm's COVID-19 Taskforce, a cross-disciplinary team of attorneys dedicated to advising employers on the many workplace law aspects of the global coronavirus pandemic. He will provide insight into the direction we can expect regulatory compliance to go in 2021 and how COVID has impacted organizations around the country and changed the way companies are doing business. Trevor Bronson, corporate strategy associate and product marketing manager for Intellex, will explore how the use of technology has evolved in 2020 and how it will impact risk management in 2021.

Attendees will learn:

- The impact of not having an assistant secretary of labor at OSHA
- What to expect from the regulatory angle in 2021

• What the future of EHS might look like post-COVID-19

Register

Not You? [Reset Form](#)

Email Address*

First Name*

Last Name*

Title*

Company*

Address 1*

Address 2

City*

State or Province*

Please Select...

Zip or Postal Code*

Country*

Please Select...

Business Phone*

☐ Would you like a free subscription to the EHS Today print/digital edition?

By clicking above, I acknowledge and agree to Endeavor's [Terms of Service](#) and to Endeavor's use of my contact information to communicate with me about offerings by Endeavor, its brands, affiliates and/or third-party partners, consistent with Endeavor's [Privacy Policy](#). In addition, I understand that my personal information will be shared with any sponsor(s) of the resource, so they can contact me directly about their products or services. Please refer to the privacy policies of such sponsor(s) for more details on how your information will be used by them.

Speakers

Lindsay Cook, President Elect at AIHA

J. Lindsay Cook, MSPH, CIH, CSP, FAIHA became the latest AIHA President in June at the end of AIHce EXP 2020. An AIHA member since 1979, Lindsay has worked with AIHA's Protective Clothing and Equipment Committee, Laboratory Health and Safety Committee, Indoor Environmental Quality Task Force, and Finance Committee. He was first elected to the Board of directors in 1999 and has worked his way through leadership positions. Prior to his recent retirement he was Senior Vice President at The EI Group, Inc. an environmental health and safety (EHS) consulting firm in Morrisville, North Carolina. Mr. Cook is a graduate of the University of North Carolina with an undergraduate degree in Chemistry and a Graduate Degree from the Industrial Hygiene program.

Howard Mavity, Partner at Fisher Phillips

Howard Mavity is a partner in the Atlanta office of Fisher Phillips. He founded and is the former co-chair of the firm's Workplace Safety and Catastrophe Management Practice Group. Mavity has managed 550 OSHA fatality cases in construction and general industry, ranging from dust explosions to building collapses, in virtually every state. He frequently oversees audits of corporate labor, HR, and safety compliance. He is also co-editor of the Fisher Phillips Workplace Safety and Health Law blog.

Trevor Bronson, Corporate Strategy Associate & Senior Product Marketing Manager at Intellex

Trevor Bronson's Environmental, Health and Safety (EHS) experience is diverse. At utility company PPL and automotive manufacturer Tesla Motors, he worked as an EHS practitioner to achieve improved EHS compliance and performance. As a senior analyst at independent EHS research firm Verdantix, Trevor supported corporate entities with selecting and optimizing their EHS technologies while also guiding EHS software vendors to broad market success. At paint manufacturer Benjamin Moore, he maintained and expanded their use of EHS technologies as a system analyst. Now, at Intellex, Trevor uses his vast industry experience to work as both a senior product marketing manager for EHS products and a corporate strategy associate helping derive and execute Intellex's near and long-term strategic goals.

Sponsor

Technical Details

This webinar will be conducted using a slides-and-audio format. After you complete your registration, you will receive a confirmation email with details for joining the webinar.

[System test](#) (opens in a new window)

VOICE YOUR OPINION!

This site requires you to [login](#) or [register](#) to post a comment.

No comments have been added yet. Want to start the conversation?

LATEST IN WEBINARS

Webinar: Seven Safety-Life Lessons from Psychological Science - How to Cultivate an Actively Caring for People Culture

[Webinars](#)

Webinar: Evolving Your Chemical Management with Digital Solutions

[Webinars](#)

Webinar: Utilizing Digital Solutions to Manage the Impact of COVID-19 and Elevate Organizational Safety Culture

[Webinars](#)

Webinar: AED Programs and COVID-19, Current Best Practices and New Considerations

[Webinars](#)

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

KENNETH L. FERGUSON, et al. : CIVIL ACTION
v. :
VALERO ENERGY CORP., et al. : NO. 06-540

MEMORANDUM

McLaughlin, J.

June 15, 2009

This is a wrongful death and survivorship action brought on behalf of a worker killed on November 5, 2005, at an accident at the Delaware City Refinery ("DCR"), now owned by defendant Valero Energy Corporation ("Valero"). The defendants have filed a motion for partial summary judgment as to the plaintiffs' claims for punitive damages. The Court will grant the defendants' motion.

I. Summary Judgment Record¹

This case concerns the death of John Jerry Ferguson, Jr., an experienced boilermaker. Mr. Ferguson was killed in an accident at DCR, near Wilmington, Delaware, on the night of November 5, 2005. Mr. Ferguson was twenty-nine years old. Mr. Ferguson was survived by two brothers, Kenneth and Michael

¹The Court takes these facts from the evidence provided by the parties in conjunction with their briefs on this motion. Where facts are disputed or characterized differently by the parties, the Court notes the dispute or difference in characterization.

Ferguson, and his father, John Jerry Ferguson, Sr. At the time of the accident, Mr. Ferguson was an employee of Matrix Services Industrial Contractors, Inc. ("Matrix").

The first plaintiff in this suit is Kenneth Ferguson, who brings claims under the Delaware Survivor's Act, 10 Del. Code § 3701, as administrator of his brother's estate and on behalf of any statutory beneficiaries. Am. Compl. ¶ 3. John Jerry Ferguson, Sr., is the other plaintiff in this action, bringing claims under the Delaware Wrongful Death Act, 10 Del. Code § 3724, in his own right and as the primary beneficiary under the statute. Am. Compl. ¶ 2. After this suit was filed, John Jerry Ferguson, Sr., passed away on April 22, 2006. As a component of these claims, the plaintiffs seek an award of punitive damages.²

The defendants here are two companies that owned and operated the DCR: Valero and Premcor Refining Group, Inc. ("PRG"). PRG owns DCR; Valero merged with PRG on September 1, 2005, and therefore DCR is a Valero refinery. Defs' Br. at 2-3.

The plaintiffs claim that Delaware law entitles them to punitive damages because of the defendants' "admissions of intentional, willful, knowing, and consciously deliberate conduct." Opp'n at 3. The defendants assert that the record

²The death of Mr. Lattanzi was the subject of an action that was previously consolidated with this case. The parties to that case stipulated to its dismissal on January 9, 2009, leaving only the parties bringing claims on the basis of Mr. Ferguson's death as the only plaintiffs in the case.

reflects only ordinary negligence, at most, and fails to provide facts sufficient to create a genuine issue of material fact as to intentional or reckless actions undertaken by the defendants in relation to the "precise harm" to the plaintiffs' decedent.

A. Safety Policies in Place during "Turnaround" of the Unit 36 Reactors

On November 5, 2005, Mr. Ferguson was working on a maintenance project involving at Unit 36-R-1. Unit 36-R-1 is one of three silo-shaped reactor vessels that are part of the "hydrocracker" unit at DCR. The other two reactor vessels are referred to as 36-R-2 and 36-R-3. The three reactors are arranged in line with each other, with a metal deck providing access to all three reactors. At the center of the Unit 36-R-1 reactor's deck is a manway entrance. When the reactor is in use, a large "L" shaped pipe (the "top elbow") is attached to both the top of the manway entrance and to a nearby pipe. When the reactor is shut down for maintenance, the top elbow is removed to permit entry into the reactor for maintenance purposes. Defs' Exs. 15-19; Def. Br. at 3-6.

In the fall of 2005, DCR underwent a "turnaround," which is the term used for the period of time when certain units of a refinery are out of service while workers perform maintenance work on the unit. PRG contracted with Matrix and Catalyst Handling Services ("Catalyst Handling"), among other

companies, to perform certain portions of the maintenance work on the Unit 36 reactors. PRG also contracted with Allied Services, Inc. and ProTech Engineering, Inc. ("ProTech") to coordinate the work of contractors like Matrix and Catalyst Handling. Defs' Exs. 26, 27. Andy Tedeschi, of Allied Services, and Bill Pyatt, of ProTech, were denominated by the defendants as "contract administrators" for Unit 36 and oversaw many aspects of the turnaround relating to Unit 36. Defs' Exs 28 at 14-17; 29 at 19-20.

DCR implemented a safety plan as part of the planning process for the turnaround. The safety plan is a document that includes specific safety expectations, including instructions on the issuance of work permits and confined space entry requirements. The plan provided that "mutual understanding is required for all jobs where permits are required." Defs' Ex. 32 at 3.

In addition to the safety plan, DCR issued "Bid Books" to contractors who wished to bid on the work for the different units at DCR. Defs' Ex. 33. The Bid Book for Unit 36 contains a list of tasks that a contractor would need to complete during the turnaround, detailed schematics of the reactor, and certain safety warnings. Among the safety warnings are two entries which read: "This reactor requires full PPE [Personal Protective Equipment] for inert entry" and "Do not enter this reactor

without stand-by personnel/safety equipment/100% tie-off & correct monitoring." Id. at VAL07805.

Matrix received a copy of both the safety plan and the Bid Book for Unit 36. Opp'n at 6. The defendants convened two meetings in August of 2005 at which the scope of work for the reactors at Unit 36 was discussed. David Huppmann, the turnaround project manager for Matrix, and Dominic Gricco, a Matrix boilermaker general foreman, appear as "required attendees" on an email notification of those meetings. Defs' Ex. 35. David Huppmann's deposition testimony recites that he does not recall attending those meeting. Defs' Ex. 37 at 96:6-22.³ Another email discusses a presentation by Catalyst Handling regarding safety coordination. Dominic Gricco is again among the names of the required attendees. Defs' Ex. 38.

DCR provided shift schedules for the work at Unit 36-R-1, which identified the job steps for each of the hydrocracker reactors and noted which steps required the use of fresh air equipment. Defs' Ex. 39. The shift schedule for work at Unit 36-R-1 for the night of the accident states that "this reactor requires full PPE for inert entry." Id. at VAL05114. The

³The plaintiffs' brief in opposition to the motion for partial summary judgment states that David Huppmann recalled attending one of these two meetings. The brief, however, provides no citation to Huppmann's testimony on this point. Although the plaintiffs occasionally cite to Huppmann's testimony throughout their brief, they have not included that testimony in their submissions to the Court.

plaintiffs note that several witnesses have testified at deposition that "Valero managers would often change the job step sequence or job requirements, just as they had changed the job step sequence on the night of the accident." Opp'n at 7.

William Hunt, manager of technical services at DCR, testified that the job step sequence for the day of the accident was altered at a meeting held the day before the accident. Pls' Ex. 29 at 90:3-93:16. Andre Tedeschi, a turnaround planner at DCR, also testified to a schedule change for the job step sequence of the night of the accident. Pls' Ex. 9 at 98:19-99:2. Tedeschi further testified that work on the top elbow proceeded at times without fresh air barricades in place and without fresh air breathing apparatuses in place. Id. at 192. Mr. Tedeschi also testified, however, that he was not personally involved in the determination of which aspects of the turnaround should be designated as a "fresh air" job. Id. at 194:6-7.

In July of 2005, prior to Valero's takeover, DCR instituted revisions to a set of standing instructions and permit forms and conducted training of refinery operations personnel and contractors. Defs' Ex. 41 at VAL05284-05287. Standing instruction 2.5.12 contains DCR's Confined Space Written Program, in which reactors are listed among the examples of "confined spaces." Defs' Ex. 43 at VAL11719. The standing instructions state that "most confined spaces in the Delaware City Refinery

will be classified as permit required confined spaces" and that such spaces contain or have the potential to contain a hazardous atmosphere. Id. The standing instructions further state that "entry into confined spaces shall only be allowed after consideration of an alternate method of performing the work from outside the space" and that "an entry permit must be prepared to document that the space is safe to enter" before any entry of a permit required confined space is authorized. Id. at VAL 11724.

The standing instructions require the development of a confined space pre-plan prior to entry into a confined space. Pre-plan meetings were to be held in order "to provide guidance to the permit issuer, the stand-by person(s) and the entrants regarding the planned scope of work and the expected hazards and safeguards." One result of the pre-plan meeting was to be a "written description of the planned permit required confined space entry to identify and eliminate any hazards and to communicate [such] information to all parties involved prior to the start of the work." Id. at VAL 11723.

A confined space pre-plan meeting report outlines the scope of maintenance for Unit 36-R-1. Defs' Ex. 44. This document includes a sketch of the reactor with notes on the dimensions of certain of its components. On a page dedicated to the catalyst dumping phase, the document contains a section titled "Atmospheric Monitoring Requirements," which lists

nitrogen among a group of gases to be tested upon initial entry. The same notation is found on a page dedicated to the task of cleaning the reactor using a soda ash wash and catalyst loading. Id. During discovery, counsel for Matrix produced a copy of this same pre-plan report that was in its possession after the accident. Defs' Ex. 45.

DCR's standing instruction 2.5.1 governs the issuance of "safework, hot work and confined space entry permits." Defs' Ex. 47. The instruction describes the requirement of mutual understanding as a prerequisite to the issuance of a permit. As part of the mutual understanding requirement, a "signer and the foreman/craftsmen must review the permit and jointly visit the job site, and must completely understand the conditions, limitations and precautions of the issued permit." Id. at VAL04966 (emphasis in original).

Standing instruction 2.5.8 governs procedures for performing fresh air work. Defs' Ex. 46. The instruction states that "[w]ork activities in known or potentially IDLH (Immediately Dangerous to Life or Health) atmospheres require the use of air-supplied 'fresh air' respiratory protection equipment. These atmospheres could include . . . oxygen deficient atmospheres involving nitrogen" Id. at VAL 04392. The same instruction requires air-supplied respiratory protection zones to be "roped off at a sufficient distance from the source with red &

white barrier tape imprinted with 'HAZARDOUS AREA KEEP OUT' to prevent unauthorized personnel from entering [the] area." Id. at VAL 04395. The instructions list "barricading or taping off area" as one of the responsibilities of the worker and/or contractor. Id. at VAL04397. A separate section lists the preparation of permits for a job as a responsibility of the operating personnel. Id. at VAL 04396.

Mutual understanding of safety requirements by both operations personnel and craftsmen or contractors was required under the standing instructions. Defs' Ex. 47 at VAL 04966. A written acknowledgment and mutual understanding agreement signed on October 16, 2005, provided for one DCR operator to issue a permit and another operator to perform the required job site visit under the mutual understanding policy. Defs' Ex. 48. The agreement also states that "when all parties have come to a mutual understanding regarding the permit requirements, work may then begin." Id.

As with the job step sequences discussed above, the parties offer competing evidence as to the fidelity with which these standing instructions were treated. Bill Hughes, the night shift project manager for the turnaround, testified that he attended nightly meetings to discuss safety. "[A]t some point in time, we had a discussion about whether or not this mutual understanding was taking place in the field, and at this safety

meeting, which included folks from operations and the craft foreman and the contract administrators and also Valero safety people . . . we discussed the fact that it didn't look like mutual understanding was taking place in the field. . . ." Pls' Ex. 3 at 33:13-24. This testimony was offered in response to questioning by the plaintiffs concerning the enforcement of a policy under which a permit writer would personally need to perform the job site visit, a policy different from that contained in the written agreement concerning mutual understanding. See Defs' Ex. 48. Hughes also testified that "the permit writer was sitting at the desk and that [he was] having someone else visit the job site." Defs' Ex. C at 37:17-20.

Brian McCloskey, a nighttime safety superintendent, testified similarly. He stated that "[t]he issuer of the permit from the operation standpoint need[ed] to make sure that someone conduct[ed] that with the acknowledger of the permit and that the joint job site inspection [took] place." Pls' Ex. 12 at 81:1-5. He testified that the signer of a permit was not required by management to personally perform the related job site inspection. McCloskey further testified that he was unaware of any written permission from management allowing a person other than the signer of a permit to perform the job site inspection. However, he also stated that "the writer of the permit didn't have to [personally perform the job site inspection] as long as another

operator familiar with the unit had the mutual understanding and did the joint job site inspection. . . . Nobody ever said that couldn't happen." Id. at 84:7-12.

Vince King, an operating area superintendent, testified that he was unaware of operators "intentionally and deliberately skip[ping] job site inspection" at the time of the turnaround. Pls' Ex. 18:7-16. William Whitaker, an operator on the hydrocracker unit, testified that permit writers "would generally . . . write the permit and then they'd hand it to the operator that was in charge of that certain area and then they [the operator] would go out." Pls' Ex. 17 at 93:11-14. Whitaker also agreed during his testimony that "permit writers at the time of this fatal accident were not allowed to go out and actually do a mutual understanding site inspection." Id. at 91:21-92:3.

David White, also an operator on the hydrocracker unit, testified concerning the use of "assigned permit writers" to fulfill mutual understanding. Defs' Ex. E at 27-39. He also agreed with plaintiffs' counsel that this procedure "save[d] time and personnel by skipping that otherwise mandatory [standing instruction] 2.5.1 job site visitation by the permit writer." Pls' Ex. 20 at 147:3-6. John Ward, a maintenance director, testified that he was unaware at the time of the accident that permit writers were not required to perform job site inspection. Defs' Ex. F at 325:16-19.

Prior to the turnaround, DCR conducted monthly audits of work permits. Defs' Ex. 52. Audits prepared for the months of February, March, April and May 2005 list the hydrocracker as one of the units achieving 100% compliance. Id. The audit prepared for August 2005 lists two problematic permits among those selected for auditing. A comment relating to the first of those two permits states: "equipment last contained not completed. Signature section not completed by operations. Operations closeout not complete." Id. at VAL08383. A comment relating to the second problematic permit states: "Job description not adequate for the job. Operations closeout not complete." Id. Comments relating to all other permits audited from the hydrocracker unit state either "Permit OK" or state that the contractor failed to sign the permit following the completion of the permitted task. Id. The hydrocracker unit was not included in the September 2005 audit, nor are audits provided from the months of the turnaround. Id.

All contractor employees working at DCR during the turnaround were required to complete the DCR contractor safety orientation. The defendants provide records demonstrating that John Ferguson attended this mandatory orientation. Defs' Ex. 54. Mr. Ferguson's signature appears on a document listing participants in a new employee training session on August 31, 2005. Id. at MATRIX 001966. The orientation included a warning

regarding nitrogen as a "potential refinery hazard." Defs' Ex. 40 at VAL11712. Mr. Ferguson's signature also appears on a form acknowledging Mr. Ferguson's receipt of an employee safety handbook. Id. at MATRIX 001967.

DCR required that all contractors, including Mr. Ferguson's employer Matrix, follow the DCR contractor safety guidelines. Defs' Ex. 53. These guidelines state that contractors are required to ensure that "each employee is trained in the work practices necessary to safely perform his/her job." Id. at VAL04827. The guidelines further require that each contractor maintain a safety representative on site, who is responsible for all safety-related activities. Id. at VAL04832. Finally, these guidelines require that each contractor generate a "safety action plan for the turnaround." Id. at VAL04829.

Matrix did create a safety action plan. Defs' Ex. 55. The plan states: "we will prepare our employees to perform their assigned tasks in a safe and professional manner through site specific training that will be completed immediately following the Valero refinery specific training." Id. at MATRIX 013953. David Huppman, a project manager for Matrix, testified that Matrix was not contracted to perform inert entry during the turnaround at DCR. Huppman Dep. at 98-101.

Prior to the turnaround at DCR, Valero created Corporate Safety and Health Guideline 13 ("SHG-13"). This safety

guideline "defines the minimum requirements that must be implemented to protect employee and contractor personnel from the potential hazards associated with the use of nitrogen within company facilities." Defs' Ex. 80 at 1. Among its requirements, the guidelines include the need to "ensure that DANGER signs are posted at all ladders and stairways that provide access to the vessel," that "a physical barrier will be installed and maintained over the opening," and that "the barrier may be removed only be authorized personnel entering the confined space." Id. at 2.

When Valero merged with PRG in September of 2005, it did not implement SHG-13 in conjunction with the other safety guidelines in place at DCR. Defs' Ex. 82 at 202:14-23. Patrick Covert, the Health, Safety and Environmental Director at DCR, testified that the company intended to review all of the guidelines and standards in place after the turnaround. Id. at 202:18-23. He testified that he "didn't feel it was appropriate, going into a turnaround, to change the policies and procedures in place because it would have created more of a safety hazard." Id. at 203:5-9.

Valero had also established certain safety precautions at a separate facility located in Paulsboro, New Jersey. These precautions involved the use of "manway lockout devices," prohibiting entry into vessels containing nitrogen. On May 22,

2002, at the Paulsboro facility, a contractor named Timothy Tillger died of nitrogen asphyxiation. Defs' Ex. 76. The accident occurred when Tillger entered into an instrument cabinet containing nitrogen. Id. Following this incident, an investigation by the Occupational Safety and Health Administration led to an "abatement action," in which OSHA required Valero to develop guidelines to prevent similar future accidents. Defs' Ex. 78 at 58:1-14. Following the abatement action, Valero drafted SHG-13, discussed above. Pls' Ex. 14 at 183:17-22.⁴

B. The Underlying Accidents

As part of the maintenance work at Unit 36-R-1 during the turnaround, the top elbow pipe connected to the manway was removed in order to allow Catalyst Handling workers to remove spent catalyst inside the reactor. Catalyst is used in hydrocracking to convert heavy oil feedstocks into lighter fuel

⁴The plaintiffs assert that Valero also developed the use of the manway lockout devices as a result of the abatement action and that such devices were not in place at the Paulsboro facility at the time of Tillger's death. However, the deposition testimony to which the plaintiffs cites in support of this contention does not state that the lockout devices were developed in the abatement action. See Pls' Ex. 14 at 183:6-15 ("Q: And Paulsboro, you are aware, were required as part of an OSHA abatement action to actually implement nitrogen safety requirements, including manway lockout devices, correct? . . . [A:] I am not aware of that specifically being part of the abatement action.").

products such as gasoline, kerosene and diesel. While the catalyst is removed, nitrogen was maintained inside Unit 36-R-1 because the spent catalyst would otherwise present a danger of combustion.

John Lattanzi was selected by Matrix to be the nighttime foreman for Matrix workers at the Unit 36 reactors. Defs' Ex. 60 at 169-170. Mr. Lattanzi's crew provided assistance to Catalyst Handling workers who were removing the catalyst. Defs' Ex. 61. John Ferguson's name appears in a list of employee signatures contained in a document titled "Job Safety Analysis" relating to catalyst removal and dated October 20, 2005, and signed by Mr. Lattanzi. Id. During the loading of catalyst into the reactor, a nitrogen atmosphere was introduced to reduce the risk of combustion. Defs' Ex. 59 at 26:4-22. When Catalyst Handling workers performed work in a nitrogen atmosphere, they would wear fresh air breathing equipment. Defs' Ex. 25 at 50:1-15.

The catalyst loading process for Unit 36-R-1 was finished early in the morning of November 4, 2005, after which point the Catalyst Handling workers videoed the reactor bed to demonstrate to others stationed elsewhere in the refinery that the job had been completed. Id. at 119-20. This video was viewed by Catalyst Handling's nighttime foreman Eric Crum, Valero engineer Randy Cashio, and an engineer from the company that

provided the catalyst. Id. at 140-42. That video showed a roll of duct tape that had been left inside the reactor. Id. 91:23-94:11. This roll of tape was not identified or removed following the initial viewing of the video. Id.

During the dayshift on November 5, 2005, work was performed on the nitrogen piping at Unit 36 so that nitrogen could be piped into Unit 36-R-2. This work required that the nitrogen flow to Unit 36-R-1 be turned off for five to ten minutes. Nitrogen flow then resumed to Unit 36-R-1. James Hughes, the operator who physically turned the valves diverting nitrogen to the different reactors on November 5, testified that nitrogen seeped out of the reactor's top as potentially combustible atmosphere was purged from the reactor. Pl's Ex. 31 at 70-72.

William Hurt, manager of technical services at DCR, testified that prior to the nightshift of November 5, 2005, DCR's management decided to begin the process of installing the top elbow on Unit 36-R-1, a process that required rearranging the pre-set job sequence. Pls' Ex. 29 at 89-93. Andre Tedeschi testified that Mr. Lattanzi, Bill Pyatt and he attended a meeting at which the work schedule was discussed. Defs' Ex. 28 at 59:1-8. Tedeschi testified he could not "say for sure that we mentioned nitrogen purge" while Bill Pyatt was in the room, but

he also testified that "it most likely was [discussed]." Id. at 59:3-24.

Mr. Lattanzi received a safe work permit, numbered 35249, at 7:00 p.m. on November 5, 2005. This permit was issued by DCR employee Byron Johnson for "loading catalyst" at Unit 36-R-2. Defs' Ex. 67. Mr. Lattanzi held a meeting after receiving the permit at which he reviewed that permit with the crew. Defs' Ex. 6 at 78. At this meeting, Mr. Lattanzi assigned Gerald Spears to work on the reactor deck on top of Unit 36-R-2, while the remaining crew members (including Roy Spears) remained at the bottom of the reactor. Mr. Ferguson did not attend this meeting because he was at his brother's wedding. Defs' Ex. 10 at 73:2-9-78:18; Pls' Ans. St. Undisputed Fact, ¶¶ 130-31.

At 9:00 p.m., Mr. Lattanzi returned to the hydrocracker control room and received a safe work permit numbered 35706. This permit includes a job description that reads: "install top elbow." This permit was also signed by Byron Johnson, who checked off a box labeled "n/a" related to nitrogen purges and inert conditions. At his first deposition, Johnson testified that he told Mr. Lattanzi at the time the permit was issued that the task was a fresh air job. Defs' Ex. 68 at 108:21-22. Johnson also testified that Mr. Lattanzi informed him that he planned only to set up his tools for a later installation. Id. at 108:19-24-109:1.

The plaintiffs offer deposition testimony from Carl Ward, who was also present at the time the permit issued and who testified that he did not recall those exact words, "fresh air," being used by Johnson at that time. Pls' Ex. 21 at 48:24. On the back of the 35706 permit is the signature of John Ferguson. Defs' Ex. 69. The record contains no evidence that a job site visitation was performed relating to this permit.

John Ferguson arrived for work on the evening of November 5, 2005, at 9:16 p.m. Defs' Ex. 71. Mr. Lattanzi assigned him to work on the deck of Unit 36-R-1 along with Roy Spears. Spears testified that when he and Mr. Ferguson arrived on the deck, there were several pipefitters already at their work. Spears testified that there was a wooden cover and plastic sheeting over the manway entrance into the reactor. Defs' Ex. 7 at 83:24-84:15. The record contains conflicting testimony regarding the presence of red warning tape at the manway entrance. Kenneth Borman, a Catalyst Handling supervisor, testified that he wrapped such tape around the stud protectors of the manway entrance. Defs' Ex. 8 at 152:24-153:6. Other witnesses testified that they did not recall any such tape at the accident scene. E.g., Defs' Ex. 7 at 81-83; Pls' Ex. 24 at 109:6-9.

Roy Spears testified that either he or Mr. Ferguson removed the wooden plank and plastic sheeting from the manway

entrance. Defs' Ex. 7 at 84:10-11. Spears testified that the two men then began the work of cleaning the joint inside the studs of the manway entrance. Id. While they worked, another of the pipefitters on the deck shone a flashlight into the open reactor and saw the roll of duct tape. Id. at 82:10-13.

Mr. Ferguson attempted to fish out the roll of duct tape using a length of nine-wire. Roy Spears testified that the impetus for the use of the nine wire to fish out the roll of duct tape was the need for safety in the presence of nitrogen. Defs' Ex. 7 at 137:5-15. Roy Spears had descended from the reactor and asked Mr. Lattanzi about removing the roll of duct tape. Spears testified that Bill Pyatt was next to Mr. Lattanzi at the time he asked about the duct tape. Id. at 93:20-24.⁵ Spears also

⁵Although the Court need not make any determination on this point to resolve the present motion, the parties dispute Bill Pyatt's role during the turnaround. The defendants characterize Pyatt as an employee of ProTech, a contracted company assisting in the turnaround. The plaintiffs argue that Pyatt was acting as a Valero agent. Much of the evidence the plaintiffs provide only indicates that Pyatt took orders from Valero, e.g. Pls' Ex. 11 at 19-21 (Deposition of Brian McCloskey, "Q: But Bill Hughes was a direct Valero employee and Mr. Pyatt at the nighttime would take his directions from him? A: Mr. Pyatt would take it from Mr. Hughes, correct."). At the deposition of Vincent King, the plaintiffs' counsel asked a question in which he characterized Mr. Pyatt as authorized to speak on behalf of Valero. Pls' Ex. 18 at 16:13-21. King did confirm this characterization although, as an operating area supervisor, it is unclear as to what basis King had to make such a confirmation. An operator, Robert Hall, similarly "confirmed" a characterization made by plaintiffs' counsel regarding Bill Pyatt as an agent of Valero. Pls' Ex. 19 at 29:13-16 ("Q: Okay. And he [Pyatt] likewise was the eyes, ears and voice of Valero for contractor interchanges during the night shift? A: I believe so.").

testified that Mr. Lattanzi and Pyatt both ascended Unit 36-R-1 after conversing with Spears. Id. at 98:11-17.

At 11:30 p.m., at approximately the same time that Mr. Ferguson was attempting to retrieve the roll of duct tape, DCR held a safety meeting, which Matrix foremen were asked to attend if possible. Defs' Ex. 72; Defs' Ex. 73 at 211:13-18. A Matrix safety representative testified that he recalled that meeting involved a discussion of the setting of the top elbow and a discussion of fresh air work. Defs' Ex. 73 at 212:10-18.

Also contemporaneous with Mr. Ferguson's attempt to retrieve the roll of duct tape, was Gerald Spears' work on the deck of Unit 36-R-2. Gerald Spears testified that he could observe the deck of Unit 36-R-1 from his position on the neighboring reactor. Defs' Ex. 10 at 83:2-12. Gerald Spears testified that Mr. Ferguson was outside the studs on the manway entrance and that he was in a "kneeling position" attempting to fish the duct tape from the inside of the reactor. Id. at 106:14-22.

Carlton Grimes was also working on Unit 36-R-2 at the time of the accident. He testified that he observed Mr. Lattanzi and a second man "panicking" around the entry into the reactor. Defs' Ex. 13 at 48:8-19. Grimes testified that he observed Mr. Lattanzi place a ladder into the reactor and climb into the hole. Id. at 48:15-24. Grimes testified that he saw the second man

begin to climb into the reactor, but that he stopped and threw his legs back onto the secure side of the reactor's railing. Id. The defendants contend that the second man's description matches that of William Pyatt.

Pyatt's testimony differs from Grimes'. Pyatt stated that he observed Mr. Ferguson "kneeling, . . . leaning over [the opening]" in an attempt to fish out the roll of duct tape. Defs' Ex. 29 at 19-20. Pyatt testified that while Mr. Ferguson attempted the retrieval, he walked to Unit 36-R-3, which shared a deck with Unit 36-R-1. Pyatt testified that he was gone for five minutes and when he returned neither Mr. Ferguson nor Mr. Lattanzi were on deck. Pyatt testified that he then looked into the manway entry and saw the two men in the reactor. Id. at 71:1-20. Pyatt testified that he put his own head over the entryway when looking into the reactor and that he did not realize that he was subjecting himself to a danger of nitrogen asphyxiation when doing so. Id. at 72:6-13.

Mr. Ferguson and Mr. Lattanzi were removed from the reactor but each man had already died. Both men died from nitrogen asphyxiation. The parties dispute how Mr. Ferguson entered the reactor. The defendants claim that Mr. Ferguson climbed into the reactor; the plaintiffs claim that he fell into the reactor after becoming disoriented due to the effects of nitrogen leaking onto the deck.

C. Prior Accidents and Incidents involving Valero

The parties differ as to the number and relevancy of prior accidents at the defendants' facilities. The defendants claim that there have been nine prior incidents involving nitrogen at companies currently owned by Valero and two prior incidents involving nitrogen at DCR. Defs' Br. at 27 (citing Defs' Exs. 74-77). The evidence provided by the defendants relating to the first of these incidents is essentially uncontradicted by the plaintiffs. Pls' Ans. St. Undisputed Fact, ¶¶ 204-13. That incident occurred in 1998 at a pipeline in Oklahoma owned by Ultramar Diamond Shamrock. Two contractors died by asphyxiation due to nitrogen exposure while working in a trench that they dug to expose the pipeline. Defs' Ex. 74. The second incident involved the Paulsboro, NJ, accident discussed above in which a contractor died by nitrogen asphyxiation.

The third incident occurred on November 24, 1997, in Texas City, Texas. Two men were exposed to nitrogen while working on a refinery reactor, both lost consciousness but were then rescued by co-workers. Defs' Ex. 74 at VAL37985-88. The parties dispute the manner in which the two men at the Texas City refinery actually got into the reactor. The plaintiffs contend that the men fell into the reactor from the deck. Pls' Ans. St. Undisputed Fact, ¶¶ 204-13. The defendants suggest that they

voluntarily entered the reactor. Defs' Br. at 28. An incident report included interviews with the two men contains their statements as to the events of that day. Each stated that the last thing they remember before passing out was working on the reactor deck. Pls' Ex. 6 at VAL46338, VAL46355.

The plaintiffs further rely on certain incidents that took place at DCR. The first occurred on October 12, 2005, and involved a crane accident. No one received any injuries in this incident. A recommendation in the incident report was to "review permit procedures, with respect to mutual understanding, with Reformer operators." Defs' Ex. J at VAL 46744.

A second incident occurred earlier, on November 15, 2004, involving a contractor named Sean Delaney. Delaney had climbed a scaffold to the top of a reactor that was under nitrogen purge. No one had made Delaney aware of the fact that the reactor was under a nitrogen purge and the incident was recorded as a near-miss. Pls' Ex. 12. The incident report created after the incident notes that "the permit issued for scaffold support [i.e., the permit Delaney was working under] is general . . . so mutual understanding of the potential hazard involving scaffold inspection at 29-R-3 while the reactor was being purged was not achieved." Id.

The plaintiffs also offer a list of "documented safety deficiencies and prior incidents at DCR and other relevant Valero

documents." Pls' Ex. 3. In addition to the incident involving Sean Delaney discussed above, this list references four prior incidents involving nitrogen at DCR. The first allegedly occurred on July 24, 1995. The document corresponding to this particular incident is a two page, hand-written list of notations which state that certain people assisted at "29-R-6 rescue." The Court can find no specific mention of the nature of the incident or of the rescue. Pls' Ex. 6 at VAL48277-78.⁶ The second incident involved a contractor named Bob Bagonis. A DCR incident investigation report notes that Bagonis became lightheaded as a result of exposure to nitrogen while calibrating instruments in the hydrocracker CEMS shelter, not the reactor or the reactor deck. Defs' Ex. 83; Pls' Ex. 6 at VAL49961. The incident report states that Bagonis closed the wrong valve while performing his calibration, thereby releasing nitrogen into the environment. Id. The third incident involved a blown valve that exposed a worker to the risk of burning by liquid nitrogen. Pls' Ex. 3 at VAL45686. The fourth incident also involved a blown valve on a

⁶The plaintiffs cite to this document, as they do for much of their evidence, by Bates number and not as an individually numbered exhibit. The documents within a particular exhibit are not arranged in order of either their Bates numbers or by the order of the corresponding incident as listed in the plaintiffs' prepared chart of incidents. This document relating to the July 24, 1995, incident, for example, was found buried within an entirely different exhibit than the one cited by the plaintiffs. The Court has scoured both plaintiffs' exhibits 3 and 6 for further information regarding this incident, but has found nothing to elaborate on the brief log entries.

nitrogen tank; the plaintiffs cite to an email concerning the event. Pls' Ex. 3 at 45404, 45406.

Finally, the plaintiffs cite to an issue of DCR's Turnaround Tabloid, a company publication concerning the process of the turnaround and discussing safety issues. On October 21, 2005, the Turnaround Tabloid noted an increase of injuries over the preceding ten days. The document includes a list of those injuries. None of the injuries states that it involved a worker who was unaware of exposure to a nitrogen atmosphere. One incident is noted as involving a worker who "ran out of air during a 'fresh air' job." The other incidents involve physical injuries such as eye irritation, twisted ankles, burns and cuts. Pls' Ex. 3 at VAL06934.

II. Analysis

The defendants have moved for summary judgment on the plaintiffs' claims for punitive damages. On a motion for summary judgment, a court must view the evidence and draw reasonable inferences from that evidence in the light most favorable to the party opposing summary judgment. See, e.g., Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 255 (1986). Summary judgment is proper if the pleadings and other evidence on the record "show that there is no genuine issue as to any material fact and that

the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c).

A. Delaware Law on Punitive Damages

The parties do not dispute that Delaware law applies to this motion for summary judgment. Moreover, both parties, as well as the Court, agree that Jardel Company v. Hughes provides the applicable standard for awarding punitive damages on the basis of recklessness. 523 A.2d 518 (Del. 1987). Jardel states:

outrageous conduct [calling for punitive damages] may be the result of an evil motive or reckless indifference. In rough approximation, these terms parallel the wilful and wanton standard of [automobile and premises] guest statutes. Each refers to a distinct state of mind, one a conscious awareness, the other a conscious indifference. But each requires that the defendant foresee that his unacceptable conduct threatens particular harm to the plaintiff either individually or as part of a class similarly situated. We prefer the term "reckless indifference" to the term "wanton," which has statutory roots now largely extinct. However, the sharp distinction, drawn by this Court in McHugh v. Brown . . . is still apt. Wantonness is no more a form or degree of negligence than is wilfulness. Wilfulness and wantonness involve an awareness, either actual or constructive, of one's conduct and a realization of its probable consequences, while negligence lacks any intent, actual or constructive.

Jardel Co., 523 A.2d at 529-30.

The plaintiffs attempt to cast their case as one demonstrating intentional conduct by the defendants sufficient to warrant punitive damages. Jardel, however, rejects the plaintiffs' attempt to conflate "intent to perform an action" and

"intent to manifest the probable harms flowing from those actions." See Opp'n at 47 ("Thus, to the extent that Jardel has any applicability to this case, it provides support for the submission of this case involving intentional, willful and wanton malfeasance to a jury. . . ."). To win punitive damages on a claim for recklessness, a defendant must be consciously indifferent to the harm they inflict, not simply conscious of the actions which result in that harm. Jardel Co., 523 A.2d at 530. Jardel reiterates this point in outlining the elements of the reckless indifference standard:

Two significant elements must be present for recklessness to exist. The first is the act itself, e.g., in accident cases the negligent operation of a motor vehicle or aircraft, in a products liability claim the manufacture or distribution of a defective product or, as in this case, the decision to provide limited security in areas to which the public has been invited. The second, crucial element involves the actor's state of mind and the issue of foreseeability, or the perception the actor had or should have had of the risk of harm which his conduct would create. The actor's state of mind is thus vital.

Id. (emphasis added). The "consciousness" element is tied with the foreseeability of harm, not merely conscious or intentional decisions to take a particular course of action.

The plaintiffs offer no evidence that would reasonably support a finding that anyone working for the defendants intended to bring about the death of John Mr. Lattanzi or John Ferguson. The fact that the defendants intentionally adopted a particular safety guideline or even that they intentionally ignored such a

guideline is not the equivalent of intending that the plaintiffs' decedents asphyxiate through exposure to nitrogen. The only plausible ground for an award of punitive damages in this case is recklessness on the part of the defendants. Therefore, the Court will continue with a discussion of the standard for proving recklessness sufficient for an award of punitive damages.

The Jardel Court described the analysis for a claim of recklessness. The defendant in Jardel was a property owner who had implemented limited security over its parking lot. The plaintiff was brutally assaulted in the parking lot and sued on the theory that the defendant should have implemented more stringent security measures. Jardel in discussing the recklessness standard as applied to that case, stated:

Where the claim of recklessness is based on an error of judgment, a form of passive negligence, the plaintiff's burden is substantial. It must be shown that the precise harm which eventuated must have been reasonably apparent but consciously ignored in the formulation of the judgment. In this case, Jardel might reasonably have been on notice concerning the incidents of general criminal conduct occurring in its parking lot. But no incident approaching the magnitude of the kidnapping and rape of the plaintiff had been reported in the thirteen months of the Globe contract.

Id. at 531. The Court continued by stating that it "may have been an error in judgment, and thus negligence, for Jardel not to opt for a larger security force, but it can hardly be said that Jardel turned its back on a known risk." Id.

The plaintiffs must demonstrate an awareness and a conscious indifference towards the particular kind of harm at issue. The Delaware courts cast this element of precision narrowly. In Jardel, for example, the record reflected 394 incidents of crime reported to police emanating from the defendant's parking lot. "[O]ver ninety percent were property or nonpersonal crimes. The remaining incidents, however, involved a kidnaping at gunpoint, an armed robbery, a sexual molestation, indecent exposures, and purse snatchings, with approximately one-half of these incidents occurring in the mall parking lot." Id. at 526.

The Jardel Court found these incidents sufficient to provide a basis for a claim of negligence on the part of the property owner. "We adopt the Restatement standard, which approves the concept that incidents of criminal activity provide a duty to foresee specific criminal conduct." Id. at 525-26. However, the same history of criminality did not provide a basis for a showing of awareness of a particular risk, abduction and rape, required for the award of punitive damages. Id. at 531.

[N]o incident approaching the magnitude of the kidnaping and rape of the plaintiff had been reported in the thirteen months of the Globe contract. Even those incidents which might be deemed assaultive pale in comparison with the attack on the plaintiff. The previous kidnaping arose in a domestic altercation, and no serious physical injury resulted from any of the previous criminal incidents. It may have been an error in judgment, and thus negligence, for Jardel not to opt

for a larger security force, but it can hardly be said that Jardel turned its back on a known risk.

Id.

Similarly, in Dick v. Koutoufaris, the plaintiff failed to demonstrate that the defendant was aware of and ignored the risk of her particular harm. The plaintiff in that case was a waitress at a restaurant who was abducted from the restaurant's parking lot and taken to a remote field where she was raped, robbed and beaten. The plaintiff presented evidence of thirteen crimes committed in the same parking lot over the previous two years. These crimes consisted of car break-ins, tire slashing and purse snatchings. In addition to these crimes, the defendant's agents admitted to knowledge of several robberies, break-ins, tire slashings and purse snatchings. C.A. No. 88C-NO-114, 1990 Del. Super. LEXIS 283 (Del Super. Ct. July 11, 1990).

These incidents served as a basis for the claim of negligence on the part of the property owner, but did not constitute a basis for punitive damages. "As in Jardel, the defendants might reasonably have been on notice of the general criminal conduct occurring in the parking lot, but no incident approaching the magnitude of the kidnaping and rape of the plaintiff was reported in the two years and nine months preceding the incident. Accordingly, it may have been an error in judgment for the defendants not to provide warnings or larger security

measures, but it cannot be said that they turned their backs on a known risk." Id. at *17.

By contrast, the facts of Galindez v. Narragansett Housing Associates, L.P., demonstrate an example of the level of specificity required for the imposition of punitive damages. In that case, a broken "closer" on a door allowed a hallway door in an apartment complex to slam shut suddenly and with great force. A cable repairman's hand was caught in that door, leading to severe damage to the hand, including the amputation of part of his finger. The community manager of the apartment complex, an employee of the defendants, testified that "she did not hire anyone or order maintenance to fix the broken door closer . . . [and] admitted that she knew (before the plaintiff was injured) a door without a properly functioning closer is an unsafe condition that could cause an injury like the one suffered by plaintiff." C.A. No. 04C-05-073-JRJ, 2006 WL 3457628, *4 (Del. Super. Ct. Nov. 28, 2006) (unpublished opinion).

Similarly, in a pre-Jardel case, Harris v. Capano Holdings, No. 80C-FE-120, 1981 Del. Super. LEXIS 673 (Del. Super. Ct. June 25, 1981), the plaintiff provided evidence sufficient to make out a case for punitive damages. In that case, a five year old boy drowned in a private club's swimming pool after climbing over a fence. The court stated that deposition testimony containing evidence that employees of a pool

were aware of "conditions at the pool which made it highly likely that someone would be severely injured or killed" sufficed as evidence of reckless indifference. Id., 1981 Del. Super. LEXIS 673, *8-*9.

In Sterner v. McGhee, 747 F. Supp. 263 (D. Del. 1990), also cited by the plaintiffs, two students who ignited a smoke bomb in a dormitory, resulting in the death of another student as a result of smoke inhalation, were denied summary judgment and a claim for punitive damages was permitted to proceed against them. The court held that "it was reasonably foreseeable that a smoke bomb, targeted directly under the door of [the decedent's] enclosed dormitory room, involved the risk of causing a fire within that enclosed space." Id., 747 F. Supp. at 271.

Other defendants in Sterner did succeed in their own motions for summary judgment on the punitive damages issue. Wesley College, the owner of the dormitory where the smoke bomb killed the plaintiff's decedent, had not implemented specific alcohol policies in its dorms beyond those imposed by Delaware law, nor had it repaired a broken fire alarm about which its agents had knowledge at the time of the incident. As to the alcohol policy, the court found no "evidence of record that officials of Wesley College had reason to believe that the College's regulations concerning the use of alcohol in the dormitories were deficient to the point of creating hazardous

circumstances on the College campus." Id. With regard to the fire alarm, the court found that the college had performed regular testing of its system and maintained that system in proper order. The failure to repair a fire alarm over the weekend when the incident occurred was evidence of negligence, but not of reckless indifference. Id., 747 F. Supp. at 272. Thus, punitive damages in Sterner survived on a recklessness theory only as to the defendants who actually launched a smoke bomb into another student's dorm room, not as to the defendants responsible for maintaining safety in the dorms.

B. The Plaintiffs Fail to Provide Evidence of Conscious Indifference

The plaintiffs' argument that Jardel's discussion of the standard for proving conscious indifference is inapplicable to this case is incorrect. Just as in Jardel, the plaintiffs' theory of harm is that the defendant oversaw a situation in which they could and should have adopted certain safety precautions but chose not to do so. Choosing to forego certain precautions does not convert a case of recklessness into one of intentional infliction of harm.

The record clearly reflects that the defendants undertook several steps to warn against the dangers of nitrogen and to ensure that their contractors had the training necessary to perform work in environments posing a risk of nitrogen

asphyxiation. DCR had implemented a safety plan in advance of the turnaround and issued bid books to its contractors outlining the safety issues concerning inert entry. Defs' Exs. 32, 33. Matrix attended pre-turnaround meetings at DCR at which the scope of work for the reactors at Unit 36 was discussed. Defs' Ex. 35. DCR held nightly meetings during the turnaround at which safety concerns were discussed. E.g., Pls' Ex. 3 at 33. Contractors were required to attend, and John Ferguson actually did attend, a contractor safety orientation at which a warning was issued regarding nitrogen as a potential refinery hazard. Defs' Ex. 54. DCR required contractors to draft their own safety action plans, which Matrix did. Id. Defs' Ex. 55.

The plaintiffs do not challenge these precautions. Instead, the plaintiffs rely mainly on four decisions and practices at DCR to support a claim of recklessness. The first is the lack of manway lockout devices. The second is the decision not to implement SHG-13 during the turnaround. The third is the decision to allow mutual understanding to proceed with two different operators writing the permit and performing job-site visitation. The fourth is the alleged failure to enforce standing guideline 2.5.8, which involved a series of fresh-air precautions. The plaintiffs could demonstrate recklessness in two ways. First, they could demonstrate that the defendants were aware that the particular danger presenting in

this case persisted in spite of the safety precautions that the defendants adopted. Second, they could demonstrate that the defendants were knowingly ignoring their stated safety policies in light of the risk of the particular harm. Either situation would demonstrate that the defendants "turned [their] back on a known risk." Jardel Co., 523 A.2d at 531.⁷

The plaintiffs fail to provide facts sufficient to demonstrate that the defendants acted with knowledge of the particular risks in this case. Mr. Ferguson was at work on the deck of a reactor under a nitrogen purge, but was not authorized or expected to retrieve anything from inside the reactor. It is uncontroverted that Mr. Ferguson was engaged in an attempt to retrieve a roll of duct tape from inside the reactor when he either fell or climbed into the open manway of Unit 36-R-1. None of the past incidents occurring at DCR or other Valero facilities was of the same magnitude of harm as this accident, nor did they involve a factual situation similar enough to this case to warrant the imposition of punitive damages.

⁷The plaintiffs have also pointed to facts that they characterize as indications of the defendants' haste in performing the turnaround. These facts would assist the plaintiffs in demonstrating why the defendants acted recklessly only if the Court found that the defendants had, in fact, acted recklessly in light of a known risk. Because the Court does not find that the facts support a claim of recklessness, the Court will not discuss these aspects of the plaintiffs' argument.

The 1998 incident on the Oklahoma pipeline, in which two contractors died of nitrogen asphyxiation, did not involve a reactor purge or a contractor performing a task beyond the expected scope of his permit. Defs' Ex. 74. The Paulsboro incident involved a death by nitrogen asphyxiation, but again not in connection with work on a reactor and involving a contractor performing an unforeseen task. Defs' Ex. 76. The 1997 incident at the Texas City refinery, in which two men were exposed to nitrogen, did involve work on the deck of a reactor. That incident, however, involved neither the death of a worker nor an unforeseen task being performed by anyone. Defs' Ex. 74; Pls' Ans. St. Undisputed Fact, ¶¶ 204-13. The incident at DCR involving Sean Delaney on November 15, 2004, involved a near-miss, not a death, as well as a broad-ranging "blanket permit" of a kind different from the limited permit issued to Mr. Lattanzi and his crew. Pls' Ex. 12. The incident at DCR on October 12, 2005, involved a crane accident completely unrelated to nitrogen exposure. Defs' Ex. J.

Nor does the plaintiffs' list of "documented safety deficiencies and prior incidents at DCR" provide facts to support a claim that DCR turned its back on a known risk. The list includes five incidents involving nitrogen. One of these is the incident involving Sean Delaney. The next is an entry discussing an incident on July 24, 1995. The documents related to this

incident do not reveal the nature of the alleged safety deficiency. The incident involving Bob Bagonis concerned work being performed at the hydrocracker CEMS shelter, not the reactor deck. That incident involved Bagonis closing the wrong valve while performing an instrument calibration. The third and fourth incidents each involved a blown valve on a nitrogen tank; neither incident involved work on the reactor deck or the performance of an unforeseen task. Pls' Ex. 3. Finally, the plaintiffs' citation to the defendants' "Turnaround Tabloid" of October 21, 2005, and that publication's list of injuries, does not disclose any facts that would support a finding that the defendants were aware of the risk of the particular harm that befell the plaintiffs' decedent. Pls' Ex. 3 at VAL06934.

The facts, when viewed in the light most favorable to the plaintiffs, suggest that the defendants' safety precautions were not applied consistently during the turnaround or on the night of the accident underlying this case. But even assuming that the facts indicate that the defendants were operating without strict compliance with their own safety procedures, the record does not support that such operation was in conscious disregard of the danger that ultimately resulted in this tragedy. The Court emphasizes that it has not reviewed the facts for, and makes no findings or decisions as to, the plaintiffs' claims of negligence. Delaware law, however, requires that the Court

impose a stricter standard on a claim for punitive damages than on one for negligence, a standard the plaintiffs' facts fail to satisfy in this case.

III. Conclusion

The facts on record fail to demonstrate that the defendants in this case acted in conscious disregard of a known risk sufficient to justify an award of punitive damages. The Court will grant the defendants' motion for partial summary judgment on the plaintiffs' claims for punitive damages.

An appropriate order shall follow separately.