

UNITED STATES OF AMERICA 130 FERC ¶ 63,004  
FEDERAL ENERGY REGULATORY COMMISSION

Brian Hunter

Docket No. IN07-26-004

INITIAL DECISION

(Issued January 22, 2010)

*APPEARANCES*

*Michael Kim, Esq.; Matthew Menchel, Esq.; Andrew Lourie, Esq.; Daniel Rashbaum, Esq.; Leanne Bortner, Esq.; and Zaharah Markoe, Esq.;* on behalf of Brian Hunter.

*Todd Mullins, Esq.; Kenneth Behle, Esq.; Justin Shellaway, Esq.; Aaron Fate, Esq., Erik Baptist, Esq.; Laura Chipkin, Esq.; Jamie Jordan, Esq.; Lee Ann Watson, Esq.; and Blair Hopkin, Esq.;* on behalf of the Federal Energy Regulatory Commission Enforcement Staff.

**CARMEN A. CINTRON**, Presiding Administrative Law Judge

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## I. INTRODUCTION

1. In this proceeding, the Commission ordered a hearing to determine whether the Anti-Manipulation Rule had been violated.<sup>1</sup> In this decision it is found that the Anti-Manipulation Rule has been violated.

## II. PROCEDURAL HISTORY

2. On July 26, 2007, the Commission issued an Order to Show Cause and Notice of Proposed Penalties.<sup>2</sup> The eight firms ordered to show cause (collectively, Amaranth)<sup>3</sup> were, collectively, a hedge fund.<sup>4</sup> The Order to Show Cause directed all Respondents to show cause why they did not violate Section 1c.1 of the Commission's regulations.<sup>5</sup> Further, the Order directed Respondents to show cause why they should not be assessed civil penalties, and why Amaranth should not be required to disgorge unjust profits from the alleged violations.<sup>6</sup>

3. On December 14, 2007, all Respondents filed their respective answers to the Order to Show Cause and motions for summary disposition. Respondents denied all of the allegations in the Order to Show Cause and argued that the Commission lacked jurisdiction and, as a result, that the matter should be terminated without further action. Additional briefs were filed by Enforcement Staff on March 18, 2008, and by Hunter on May 19, 2008.

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<sup>1</sup> Anti-Manipulation Rule, 18 C.F.R. § 1c.1 (2009).

<sup>2</sup> *Amaranth Advisors L.L.C.*, 120 FERC ¶ 61,085 (2007) (Order to Show Cause).

<sup>3</sup> The firms: Amaranth Advisors L.L.C., Amaranth L.L.C., Amaranth Management Limited Partnership, Amaranth International Limited, Amaranth Partners L.L.C., Amaranth Capital Partners L.L.C., Amaranth Group Inc. and Amaranth Advisors (Calgary) U.L.C.

<sup>4</sup> By the end of 2005, the hedge fund employed over 600 people in the Greenwich, Connecticut headquarters and seven other offices worldwide, including former Amaranth employees Brian Hunter (Hunter) and Matthew Donohoe (Donohoe) (collectively, along with Amaranth, the Respondents).

<sup>5</sup> 18 C.F.R. § 1c.1.

<sup>6</sup> *Order to Show Cause*, *supra* note 2, at P 1.

4. By Order issued July 17, 2008, the Commission denied all Respondents' respective motions for stay and summary disposition and the remaining motions for rehearing (Hearing Order).<sup>7</sup> The Commission set the matter for hearing to address the allegations in the Order to Show Cause.<sup>8</sup> On August 27, 2008, Hunter requested an expedited rehearing of the Hearing Order.
5. On August 5, 2009, a prehearing conference was held before Chief Judge Curtis L. Wagner, Jr. Chief Judge Wagner established a partial procedural schedule and designated the Honorable Carmen A. Cintron as the presiding judge.<sup>9</sup>
6. On October 16, 2008, Amaranth L.L.C. and Amaranth International Limited renewed their motions for summary disposition. At the prehearing conference held October 29, 2008, the motions for summary disposition were denied and a procedural schedule was established.<sup>10</sup>
7. The Respondents and Enforcement Staff subsequently engaged in settlement negotiations. On November 7, 2008, a joint Motion for Suspension of Proceedings and Extension of Time to Facilitate Settlement was filed. Chief Judge Wagner granted this motion on November 10, 2008.<sup>11</sup> An offer of settlement was filed on November 24, 2008 (November Settlement), and Chief Judge Wagner granted a motion to suspend the proceedings to allow consideration of the November Settlement.<sup>12</sup>
8. On December 3, 2008, Judge Cintron certified the November Settlement to the Commission. By order dated February 12, 2009, the Commission rejected the November Settlement.<sup>13</sup>
9. On February 17, 2009, Chief Judge Wagner issued an order reinstating the procedural schedule and designated Judge Cintron as the presiding judge.<sup>14</sup> On

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<sup>7</sup> *Amaranth Advisors, L.L.C.*, 124 FERC ¶ 61,050 (2008) (Hearing Order).

<sup>8</sup> The Commission reserved to itself the penalty phase.

<sup>9</sup> *Amaranth Advisors L.L.C.*, Docket No. IN07-26-000 (Aug. 13, 2008).

<sup>10</sup> *Id.*

<sup>11</sup> *Amaranth Advisors L.L.C.*, Docket No. IN07-26-000 (Nov. 10, 2008).

<sup>12</sup> *Amaranth Advisors L.L.C.*, Docket No. IN07-26-000 (Nov. 25, 2008).

<sup>13</sup> *Amaranth Advisors L.L.C.*, 126 FERC ¶ 61,112 (2009).

February 20, 2009, a Stipulated Motion for Entry of a Prehearing Schedule was filed. On February 23, 2009, Judge Cintron granted the motion, and established a new procedural schedule.<sup>15</sup>

10. As provided for in the procedural schedule, Enforcement Staff filed Direct Testimony on March 13, 2009. On June 5, 2009, Respondents filed Direct Testimony, and on July 14, 2009, Enforcement Staff filed Rebuttal Testimony. The procedural schedule contemplated up to six adverse witnesses to be called live at the hearing; prepared testimony was not filed for these witnesses.<sup>16</sup>

11. On July 23, 2009, Amaranth Advisors L.L.C., Amaranth L.L.C., Amaranth Management Limited Partnership, Amaranth International Limited, Amaranth Partners L.L.C., Amaranth Capital Partners L.L.C., Amaranth Group Inc., Amaranth Advisors (Calgary) U.L.C., and Matthew Donohoe (collectively, Settling Respondents) and Enforcement Staff filed an offer of settlement (July Settlement) and a Joint Motion for Severance and Stay. The Settling Respondents requested that the Commission sever them from the hearing proceeding and stay the procedural schedule as to the Settling Respondents, pending the Commission's consideration of the July Settlement. On August 12, 2009, the Commission granted the Settling Respondents' request and severed them from the proceeding, leaving Brian Hunter as the only Respondent remaining in the instant proceeding.<sup>17</sup> Additionally, on July 24, 2009, Hunter filed a Consent to Waiver of Comment Period relating to the July Settlement. The July Settlement was approved by the Commission on August 12, 2009.<sup>18</sup>

12. On July 23, 2009, Hunter filed an Expedited Motion to Stay the Proceeding to Allow Time to Conduct Discovery on the Rebuttal Testimony, Motion to Strike Portions of Rebuttal Testimony of Enforcement Staff's Witnesses or, in the Alternative, for Leave to File Surrebuttal Testimony. Following oral argument held on July 28, 2009, Hunter was allowed to file limited surrebuttal testimony

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<sup>14</sup> *Amaranth Advisors L.L.C.*, Docket No. IN07-26-004 (Feb. 17, 2009).

<sup>15</sup> *Amaranth Advisors L.L.C.*, Docket No. IN07-26-004 (Feb. 23, 2009).

<sup>16</sup> *Id.*

<sup>17</sup> *Amaranth Advisors L.L.C.*, 128 FERC ¶ 63,014 (2009) (Certification of Uncontested Settlement).

<sup>18</sup> *Amaranth Advisors L.L.C.*, 128 FERC ¶ 61,154 (2009) (Order Approving Uncontested Settlement).

only as to the Pre-Filed testimony of Dr. King, to be filed by August 13, 2009.<sup>19</sup> The Presiding Judge further ordered that the hearing be delayed by two weeks<sup>20</sup> and that certain discovery and pre-trial deadlines be extended.<sup>21</sup> Hunter filed Surrebuttal Testimony on August 13, 2009.

13. On August 6, 2009, Brian Hunter filed an Expedited Motion to Exclude Enforcement Staff's Pre-Filed Testimony of Jeffrey Billings. At the August 12, 2009 oral argument, this motion was denied.<sup>22</sup>

14. On August 14, 2009, Brian Hunter filed a motion to disqualify the Presiding Judge from adjudicating the proceeding. The Commission denied Hunter's motion on August 18, 2009.<sup>23</sup>

15. On August 14, 2009, Hunter filed an Expedited Motion to Strike Portions of Dr. Kaminski's Pre-Filed Direct Testimony and on August 17, 2009, Hunter filed an Expedited Motion for Reconsideration of the Order Denying Hunter's Motion to Exclude Pre-Filed Testimony of Jeffrey Billings. Both motions were subsequently denied at the first day of the hearing.<sup>24</sup>

16. The hearing commenced on August 18, 2009 and concluded on September 2, 2009. Initial briefs were filed on October 13, 2009.<sup>25</sup> Reply briefs were filed on October 26, 2009.

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<sup>19</sup> *Brian Hunter*, Docket No. IN07-26-004 (July 29, 2009).

<sup>20</sup> *Id.*

<sup>21</sup> *Brian Hunter*, Docket No. IN07-26-004 (July 31, 2009).

<sup>22</sup> *Brian Hunter*, Docket No. IN07-26-004 (Aug. 12, 2009).

<sup>23</sup> *Brian Hunter*, 128 FERC ¶ 61,163 (2009).

<sup>24</sup> *Brian Hunter*, Docket No. IN07-26-004 (Aug. 19, 2009).

<sup>25</sup> On October 9, 2009, Hunter filed a Bench Memorandum Summarizing Legal Authorities Concerning Artificial Price.

### III. ISSUES

#### A) Issue One: Personal Jurisdiction

##### Party Contentions

###### *Enforcement Staff*

17. Enforcement Staff contends that Hunter has had sufficient contacts with the United States to justify the Commission's exercise of personal jurisdiction. Enforcement Staff's Initial Summation Brief (Enforcement Staff IB) at 8. Citing Supreme Court precedent for the proposition that a foreign defendant shall be subject to personal jurisdiction where the defendant has had "minimum contacts" with the United States and "traditional notions of fair play and substantial justice" would not be offended. *Id.* According to Enforcement Staff, the Supreme Court has also rejected the notion that the "absence of physical contacts can defeat personal jurisdiction." *Id.*

18. Hunter had sufficient contacts with the United States to assert specific and general jurisdiction. *Id.* at 9. Hunter had specific jurisdictional contacts with the United States for several reasons. For example, Hunter directed natural gas trading on United States exchanges and worked for Amaranth Advisors, L.L.C. in Connecticut while commuting from New York. *Id.* Additionally, FERC has general jurisdiction over Hunter because he had continuous and systematic contacts with the United States since at least 2001. *Id.* at 10. Citing Supreme Court precedent, Enforcement Staff states that "continuous" and "systematic" general contacts with the United States give rise to general jurisdiction. *Id.* at 9. Between 2005 and 2007, Hunter travelled extensively throughout the United States, used a United States mailing address and availed himself of the opportunities of both state and federal courts. *Id.*

###### *Hunter*

19. Hunter claims that the Commission does not have personal jurisdiction over him. Brian Hunter's Initial Summation Brief (Hunter IB) at 65-66. In order to establish personal jurisdiction, the Commission must demonstrate that Hunter purposefully established sufficient minimum contacts with the United States and that the exercise of jurisdiction over Hunter would not offend traditional notions of fair play and substantial justice. *Id.* Hunter maintains that Staff established neither prong of this two-prong test. *Id.* at 66.

### Discussion

20. The evidence demonstrates that Hunter had sufficient contacts with the United States to justify the exercise of personal jurisdiction in this case. Additionally, the evidence establishes that the exercise of personal jurisdiction over Hunter is fair under the circumstances in this case. Enforcement Staff has met its burden of proof for this issue.

21. Hunter, a Canadian citizen, has sufficient contacts with the United States for this forum to exercise jurisdiction over him. First, relating to specific, transactional and jurisdictional contacts, it is undisputed in this record that Hunter traded instruments on exchanges in the United States for several years. Tr. at 289-90. The evidence in this case establishes that Hunter worked for Amaranth Advisors L.L.C. from 2004-2005, and he commuted from New York City to company headquarters at Greenwich, Connecticut. *Id.* at 287-88. Once he moved back to Canada he continued working for Amaranth by way of Amaranth Advisors Calgary and communicated by telephone, emails and instant messages with other employees in Greenwich. The evidence is clear that Hunter frequently traveled to Connecticut to attend meetings. *Id.* at 289. Moreover, in his capacity as trader for Amaranth, Hunter caused the trading of natural gas instruments in United States exchanges, including the New York Mercantile Exchange, located in New York City. *Id.*<sup>26</sup>

22. Hunter worked for Deutsche Bank in New York City in a capacity that also involved trading in natural gas in United States markets from 2001-2004. Tr. at 284; Ex. S-210. Moreover, Hunter has solicited United States investors with a proposal to invest in his new hedge fund, Solengo Capital Advisors, on or about 2007. Tr. at 295-96. Hunter also consulted for Peak Ridge Capital Group, which has offices in Boston, Massachusetts and Madison, Wisconsin. *Id.* at 297.

23. Concerning general jurisdiction, the evidence indicates Hunter maintained continuous and systematic contacts with the United States from 2001 until this day. The record shows that Hunter repeatedly travelled to the United States during 2005 to 2007. He travelled to White Plains, New York; Greenwich, Connecticut; Texas; San Francisco and Pebble Beach, California; Spring Lake, New Jersey; Las Vegas, Nevada; Florida and Hawaii. Tr. at 290-91. Even while living in Canada, Hunter maintained a United States mailing address. *Id.* at 292; Ex. S-222. Additionally, Hunter has subjected himself to the jurisdiction of United States

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<sup>26</sup> *Helicopteros Nacionales de Colombia, S. A. v. Hall*, 466 U.S. 408, 414-416 & n. 8-9 (1984); *Int'l Shoe Co. v. Washington*, 326 U.S. 310, 316 (1945); *Burger King v. Rudzewicz*, 471 U. S. 462, 476 (1985).



courts in the past. For instance, in 2004 Hunter sued his former employer the Deutsche Bank, in the Supreme Court of the State of New York. Tr. at 284, 287; Ex. S-210. Accordingly, it is found that the evidence in this case clearly establishes that this forum has personal jurisdiction over Hunter.

## **B) Issue Two: Violation of Section 1c.1 (Anti-Manipulation Rule)**

### **1) Fraudulent or Deceptive Behavior**

#### **Party Contentions**

##### *Enforcement Staff*

24. Enforcement Staff asserts that under the Natural Gas Act (NGA) Section 4A,<sup>27</sup> market manipulation is shown where “market transactions send false signals to market participants” with the intention of creating an artificial price. Enforcement Staff Reply Brief (Enforcement Staff RB) at 20, citing Hearing Order, *supra* note 7, at P 64. The Commission provided that NGA Section 4A market manipulation cases do not require demonstration of “specific false statements.” *Id.* Price artificiality does not require demonstration that a defendant violated New York Mercantile Exchange (NYMEX) rules, bids or offers. Enforcement Staff RB at 20.<sup>28</sup> The Commodity Futures Trading Commission (CFTC) has held that price artificiality is shown where a defendant paid more for a commodity or sold it for less than necessary. *Id.* The CFTC also found that a “series of rapid and successive” offers was sufficient proof that a respondent impacted price. Enforcement Staff RB at 21.<sup>29</sup>

25. Hunter created artificial NYMEX settlement prices by saturating the market with large amounts of futures and selling at lower than average prices during periods of diminished liquidity. Enforcement Staff IB at 45. Specifically, Enforcement Staff maintains that Hunter traded prompt-month futures during the three at-issue settlement periods at prices below the average price of other market participants’ trades. *Id.* at 46.

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<sup>27</sup> Energy Policy Act of 2005 (EPAAct 2005), Pub. L. No. 109-58, 119 Stat. 594 (2005) (codified as 15 U.S.C. § 717c-1).

<sup>28</sup> Citing *In re DiPlacido*, Docket No. 01-23, 2008 CFTC LEXIS 101, at 91-94 (Nov. 5, 2008), *aff’d by summary order*, *DiPlacido v. CFTC*, 2009 U. S. App. LEXIS 22692 (2d Cir. Oct. 16, 2009).

<sup>29</sup> Citing *In re Henner*, No. 161, LEXSEE 30 Agric. Dec., 1151 (CFTC CEA Sept. 15, 1971).

26. Market fundamentals do not explain the price movements during the at-issue periods. *Id.* at 58, RB at 24. No information regarding market fundamentals arrived during the at-issue settlement periods, and any information available before the start of the settlement periods would have already been reflected in market prices. Enforcement Staff IB at 58. Dr. Quinn provided three examples of market fundamentals regarding the at-issue months. *Id.* at 59. However, the examples he provided came out a day or more before the settlement periods and therefore do not explain why market participants would have a sudden change in their expectations during the expiry period. *Id.* at 59-60. The WSI weather report that Hunter's counsel produced at the hearing was generated on August 18, 2009, at 2:56 p.m. *Id.* at 60; Tr. at 1548; Ex. RES Demonstrative 18. Hunter never demonstrated that such a weather report was issued immediately before the at-issue settlement periods. Enforcement Staff IB at 60.

27. In addition, the diminished liquidity during the settlement period facilitated the price changes during the at-issue periods. *Id.* at 61. Liquidity is not merely measured by the number of market participants, but also by the ability to transact large volumes with no or small impact on price. *Id.* Traders who cannot assume delivery obligations face unique pressures during the expiry and may be forced to make price concessions. Enforcement Staff RB at 35. This results in price volatility which is an indication of illiquidity. Enforcement Staff IB at 61, RB at 35.

28. Further, Enforcement Staff notes that traders would not have to trade in the post-close period if the market was liquid enough to absorb the large trading volumes. Enforcement Staff IB at 62. Because of the diminished liquidity in the at-issue closing periods, Hunter's large trades sold at prices significantly below those of contemporaneous sales. *Id.*

29. Enforcement Staff contends that Dr. Kaminski's price impact model demonstrated that Hunter's trades caused a significant price reduction in each at-issue period. *Id.* at 49-51. Dr. Kaminski used multiple variables in the price impact model, including: the size and timing of Amaranth's trades, the relative concentration of buyers and sellers in the market, and information regarding other companies' trades. *Id.* at 51, RB at 24. In contrast, Dr. Quinn, Hunter's expert, used only one variable in his correlation analysis - the quantity of Amaranth's sales. Enforcement Staff RB at 22-24. Dr. Quinn's correlation analysis therefore omits variables such as Amaranth's market share and Amaranth's prices in relation to average prices. Enforcement Staff IB at 57, RB at 22-23. Dr. Quinn only analyzed the minutes during which Amaranth traded. *Id.*

30. Dr. Kaminski's price impact model accounted for the fact that some market participants may have had a delayed reaction to Amaranth's trades. Enforcement

Staff IB at 51. To capture delayed market reactions, Dr. Kaminski used volume weighted average prices, “lagged” one, two and three minutes ( $p_{t-1}$ ,  $p_{t-2}$ , and  $p_{t-3}$ ). *Id.*, RB at 25-26. Dr. Kaminski used the lagged variables to calculate the difference between average one-minute transaction prices with and without Amaranth’s trades. Enforcement Staff IB at 52. The lagged variables also served as controls for other market factors’ effects on prices. *Id.* at 51.

31. Dr. Kaminski also conducted a concentration analysis. This analysis focused on Amaranth’s market share, the percentage of Amaranth’s trades relative to total market volume in each minute. *Id.* at 52, RB at 26-27, 32-33. Dr. Kaminski used “*hhi\_buy*” and “*hhi\_sell*” variables to measure other market participants’ concentration on the buy and sell-sides, excluding Amaranth.<sup>30</sup> Enforcement Staff IB at 53. Enforcement Staff explains that the concentration analysis helped in the assessment of whether other market participants’ trades influenced price, and isolated the price impact of Amaranth’s trades. *Id.*

32. As part of his concentration analysis, Dr. Kaminski used multiple regression analysis, a statistical technique to measure the impact of various factors on market price. *Id.* The regression model replicates the market dynamics that occurred, including the volume - weighted average price per minute. *Id.* Dr. Kaminski used different factors for each month because each trading day had unique circumstances. These included: the ratio of financial trades to contracts that went to delivery, companies’ trading positions, the concentration of buyers and sellers, and information on market fundamentals. *Id.* at 54, RB at 27. After he constructed the regression models, Dr. Kaminski removed Amaranth-specific factors and calculated the settlement price that would have occurred without Amaranth’s trading. Enforcement Staff IB at 54.

33. Dr. Kaminski did not commit data snooping, because he first chose a model specification and then applied that specification to a limited set of variables to determine which subset of variables was statistically significant. *Id.* at 55. Dr. Kaminski did not run thousands of regressions against a database of hundreds of variables and then form an explanation to suit preferred results. *Id.*

34. Dr. Kaminski used two other models, the stepwise model and the cumulative price impact model, as robustness checks. *Id.* at 54-55, RB at 27. The three models all demonstrated that Amaranth’s trading impacted the settlement price in the three at-issue periods. Enforcement Staff IB at 54-55.

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<sup>30</sup> Herfindahl-Hirschman Index. The HHI is a widely accepted measure of market concentration. *See, Exelon Corp.*, 127 FERC ¶ 61,161 at 12, n. 32 (2009) (defining HHI and discussing Commission merger guidelines).

35. Hunter's personal attacks on Dr. Kaminski lack merit. Enforcement Staff IB at 50, RB at 34. Dr. Kaminski has over fifteen years of energy-related experience, has held senior positions at several major companies, and has managed professionals engaged in analysis of energy derivatives and contracts. Enforcement Staff IB at 50. Therefore, Enforcement Staff contends that Dr. Kaminski is a credible authority on energy markets. *Id.* Enforcement Staff also refutes Hunter's claim that Dr. Kaminski gave inconsistent testimony regarding differences in price dynamics during and preceding the close. Enforcement Staff RB at 34. Dr. Kaminski consistently said that the two time periods may have different price dynamics. *Id.* In response to Hunter's criticism of Dr. Kaminski for not rescinding his statement that Amaranth's risk reduction strategy was an *ex-post facto* rationalization, Enforcement Staff avers that Dr. Kaminski found no evidence that established why Amaranth needed to use prompt-month futures during the settlement period to reduce risk, and found no evidence of a risk reduction strategy before April 26, 2006. Enforcement Staff RB at 34.

36. Dr. Quinn's price reversal analysis was flawed. Dr. Quinn analyzed Henry Hub spot prices for indication of price reversal. *Id.* at 28. Enforcement Staff contends that spot prices are set before 12:30 p.m., and therefore would not capture price reversal during or after the NYMEX settlement period. *Id.* Dr. Quinn did not conduct a statistical analysis to determine whether there was price recovery in the post-close periods. *Id.* at 29.

37. Regardless, Enforcement Staff asserts that establishing market manipulation does not require a demonstration of price reversal. Enforcement Staff IB at 63, RB at 27. Courts have given minimal weight to evidence of a price recovery because it "could have been the result of some market or other influence." Enforcement Staff IB at 63, citing *In re BellSouth Corp. Securities Litigation*, 355 F. Supp. 2d 1350, 1371 n.21 (N.D. Ga. 2005). Also, while price recovery analyses are common in equity markets, those markets are distinct from the prompt-month natural gas futures contract where trading ends at the close of the settlement period. *Id.* Furthermore, Enforcement Staff states, price reversal in natural gas futures can be attributed to changes in market fundamentals or normal price volatility. *Id.*

38. In response to Hunter's arguments concerning the burden of proof, Enforcement Staff states that the burden of proof is preponderance of the evidence and Hunter's arguments are legally wrong. Enforcement Staff RB at 2.

#### *Hunter*

39. Hunter states that Dr. Kaminski's concentration analysis was invalid and unreliable. The first flaw concerns the use of the HHI. Hunter IB at 5-6. Dr.

Kaminski incorrectly used the HHI to compare the market concentration of buyers to the market concentration of sellers. *Id.* The proper use of the metric is to determine whether market concentration thresholds as defined by either the U.S. Department of Justice or the FERC have been met. *Id.* Even using the HHI as Dr. Kaminski did, the HHI concentration measure did not establish that there was an imbalance on the sell side of the market that could have caused artificial pricing. *Id.* at 6. The HHI concentration measure was higher on the buy-side than on the sell-side on each at-issue expiry day. *Id.*

40. Additionally, Hunter criticizes Dr. Kaminski for using volume concentration during the settlement period as an explanatory variable for price changes over the entire day, rather than over the settlement period. *Id.* at 7. Dr. Quinn replaced the variable measuring price returns over the previous day with a variable measuring price returns over the settlement period. *Id.* After Dr. Quinn made this replacement, he found that there was no statistically significant relationship between sell volume concentration and price changes during the settlement period. *Id.* at 8.

41. Dr. Kaminski did not use the correct variables in his regressions. Because Dr. Kaminski excluded factors relating to market fundamentals and the prices of energy-related products, his analyses suffer from omitted variables bias. *Id.* at 7-8. Hunter also criticizes Dr. Kaminski's use of three explanatory variables in his regressions to explain price movement: buy-side concentration, sell-side concentration, and buy-side concentration squared. *Id.* at 8. The buy-side concentration and buy-side concentration squared variables were found to be statistically significant, but the sell-side concentration variable was not. *Id.* at 9. Dr. Kaminski hid the sell-side concentration variable's insignificance by combining it with buy-side concentration in a logarithmic ratio. *Id.* Therefore, the regression could not distinguish between the buy and sell-sides. *Id.* When Dr. Quinn separated the ratio into its buy and sell-side components the sell-side lost statistical significance. *Id.*

42. Hunter maintains that Dr. Kaminski's price impact model suffers the same fundamental flaws as his concentration analysis, including data snooping, omitted variables bias, and failure to pass robustness checks. *Id.* at 9-10, Brian Hunter's Reply Brief (Hunter RB) at 27. Dr. Kaminski's price impact analysis is the result of data snooping because he started the analysis with the assumption that Amaranth impacted price, excluded all other possible explanations, and ran as many regressions with as many variables necessary to obtain the results he wanted. Hunter IB at 12-13. Further, Dr. Kaminski chose variables from a pool of variables related mostly to Amaranth. *Id.* Therefore, Hunter charges, the price impact analysis would inevitably show that Amaranth's trading would have a statistically significant impact on price. *Id.* Hunter adds that Dr. Kaminski's use

of different models for each at-issue day indicates data snooping. *Id.* at 13, RB at 30.

43. Dr. Kaminski's price impact analysis suffers from omitted variables bias because he excluded variables that represent other large traders' potential impact or market fundamentals. Hunter IB at 15, RB at 36. Hunter argues that the time lags that Dr. Kaminski used in the price impact models are inappropriate because NYMEX pit traders would not take one minute, much less three, to respond to other market participants' trades. Hunter IB at 12. Dr. Kaminski used different time lags for different dates, although a trader would not react differently on one day than on another. *Id.* at 11. Dr. Kaminski's use of variables with different time lags for different dates is symptomatic of data snooping. *Id.* at 12.

44. Next, Dr. Kaminski did not apply his models to other data sets or conduct adequate robustness testing on his models. *Id.* at 14, RB at 30-31. When a model is robust, it would fit the other data sets reasonably well. Hunter IB at 14. Otherwise, there is an indication that the model was tailored to a particular data set. *Id.* Hunter claims that when Dr. Quinn performed robustness tests on Dr. Kaminski's price impact models, the results revealed that the model was fundamentally flawed. *Id.* For example, when Dr. Quinn applied the benchmark model for the April contract to the data from the March and May contracts, all the Amaranth variables were statistically insignificant. *Id.* Also, when Dr. Quinn applied the models to the top buyers in the April contract, he found that they had a downward effect on price. *Id.* at 15.

45. Moreover, Hunter asserts that Dr. Kaminski gave misleading testimony. *Id.* at 16-18. Dr. Kaminski used volume concentration data from the settlement period to explain price changes over the previous day in his concentration analysis although he agreed that price dynamics can change during the two time periods. *Id.* at 17-18. In addition, Dr. Kaminski did not rescind his allegation that Amaranth's risk reduction strategy was an *ex-post* rationalization of activities on April 26, 2006, although instant messages between Chasman and Hunter document discussions that day concerning risk reduction strategy. *Id.* at 18. Dr. Kaminski did not conduct empirical analysis regarding Amaranth's influence on other traders in the NYMEX pit. *Id.* at 20. Additionally, Dr. Kaminski had insufficient expertise regarding ICE positions and whether they count as offsets of the NYMEX hedge exemption limit when he claimed that Amaranth exceeded this limit. *Id.*

46. In addition, Dr. Quinn conducted a correlation analysis and found that there was no statistically significant correlation between Amaranth's trading and the price changes on NYMEX during the at-issue settlement periods. *Id.* at 21. Hunter notes that Dr. Quinn could have ended his analyses then, because if there is

no statistically significant correlation between factors, there cannot be causation between them. *Id.*

47. However, Dr. Quinn also analyzed information regarding the physical and financial market prices during the at-issue months and found no evidence of price recovery, supporting the conclusion that there was no artificial price. *Id.* at 23, RB at 35. Dr. Quinn analyzed prompt-month spot prices, bid week prices, Platts index prices, prompt-next futures prices, and swaps contracts prices before, during and after each at-issue day, and found no statistically significant evidence of price recovery. Hunter IB at 23.

48. Dr. Quinn was the only witness to analyze liquidity in the natural gas futures market, Hunter maintains. *Id.* at 24, RB at 34. Dr. Quinn considered trading volume and the number of participants in his analysis. Hunter IB at 24. Dr. Quinn explained that the greater the volume, the less trading affects prices, and the greater number of participants, the less chance that a trader can manipulate prices. *Id.* He found that the NYMEX expiry day generally has the highest daily trading volumes for the life of a contract, and trading volume on the expiry day peaks during the settlement period. *Id.* Also, the number of market participants is highest during the settlement period. *Id.* Hunter asserts that, in trading during the settlement period, Amaranth traded during the most liquid time on the NYMEX market. *Id.*

49. Dr. Quinn also assessed Amaranth's trading during the at-issue periods compared to other traders on the buy and sell sides on ICE and NYMEX markets and found nothing unusual about Amaranth's trading. *Id.* at 25. Hunter concludes that these findings establish that neither he nor Amaranth manipulated the market.

50. Consequently, Hunter asserts that Enforcement Staff failed to establish that Hunter caused artificially low NYMEX settlement prices for the at-issue prompt-month natural gas futures contracts and artificially low physical natural gas prices. Hunter IB at 2-25, RB at 20-26. Hunter states that artificial price is established where conduct distorts market behavior such that prices do not reflect supply and demand. Hunter RB at 25-26.<sup>31</sup>

51. Showing that Amaranth's trades were frequently below average prices, and lowered the settlement price, does not establish artificial price. Hunter RB at 250.

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<sup>31</sup> Citing *Sullivan & Long v. Scattered Corp.*, 47 F.3d 857, 864 (7th Cir. 1995); and *United States v. Radley*, No. H-08-411, (CHM), 2009 WL 3013457, \*11 (S.D. Tex. Sept. 17, 2009).

Hunter asserts that the impact of high-volume trades on price is a natural market occurrence that does not indicate illegal or misleading conduct. *Id.*<sup>32</sup>

52. Hunter further argues that Enforcement Staff did not prove that other traders lowered their prices because of Amaranth's trades, or that Amaranth or its brokers traded below prevailing prices. Hunter RB at 21-22. Hunter notes that NYMEX compliance officers ensure that all trading in the pit is done at the best prevailing price. *Id.* at 23-24.

53. The burden of proof in this proceeding should be clear and convincing due to the fact that the Commission may impose punitive-like civil penalties. Hunter IB at 1 n.1.

### Discussion

54. The facts in this case are not in dispute.<sup>33</sup> What is in dispute is the interpretation of the facts. The facts are as follows. Hunter was the lead natural gas trader for Amaranth during the time in question in this proceeding. Hunter assumed this position after making significant profits in natural gas markets after the major disruptions suffered as a result of hurricanes Katrina and Rita in 2005. Ex. S-1 at 57. This case involves the trading of futures contracts<sup>34</sup> on the NYMEX

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<sup>32</sup> Citing *Utesch v. Dittmer*, 947 F.2d 321, 328 (8th Cir. 1991); and *GFL Advantage Fund, Ltd. V. Colkitt* 272 F.3d 189, 207-09 (3d Cir. 2001).

<sup>33</sup> The burden of proof in this proceeding is preponderance of the evidence. This is due to the fact that the NGA Section 22(b) directs a public hearing for the imposition of penalties. 15 U.S.C. § 717t-1(b). Section 7 of the Administrative Procedures Act applies in every case of adjudication required by statute to be determined on the record after an opportunity for an agency hearing. In such cases, the standard of proof is preponderance of the evidence. It is noted that Hunter so argued previously in this proceeding. Answer of Brian Hunter in Opposition to Order to Show Cause and Notice of Proposed Penalties (Answer of Hunter in Opposition to Show Cause), at 73-74 Docket No. IN-27-000 (Dec. 14, 2007), citing *U.S. v. Steadman*, 450 U.S. 91, 96 (1981). The cases cited by Hunter are inapposite (the administrative sanctions are clearly distinguishable from the case at bar) and both cases were decided before *Steadman*. Hunter's arguments concerning Staff's failure to prove every fact as laid out in the order to show cause are without merit. The order to show cause is a statement of the matters set for inquiry and by virtue of the rule is tentative. *See*, 18 CFR §385.209.

<sup>34</sup> Futures contracts are financial instruments tied to the commodity (natural gas). They are standardized contracts traded on an organized exchange. Ex. S-1 at 13.



and futures look-alike instruments traded on the Intercontinental Exchange (ICE), on Clearport, and Over the Counter (OTC).<sup>35</sup>

55. Over the three at-issue months, trading was done in the NYMEX pit in an open outcry process. Tr. at 1055-56, 1066. The pit was represented to be tiers of circles going down into the floor, with traders facing one another. *Id.* at 1055-56, 304. Market participants were positioned on different tier levels depending on their functions. *Id.* at 304. Traders from different brokerage houses received orders through phone clerks located outside the pit. Ex. S-1 at 20. The orders were handed to pit traders who transact through voice and hand signals.

56. A bid is the price someone is willing to pay for a particular contract and an offer is a price at which someone is willing to sell. *Id.* at 19-20; Tr. at 322, 1066, 1068-69. The highest bidder and the lowest seller set the prevailing bid and offer prices. A buyer accepting the prevailing offer is “lifting the offer,” and a seller accepting the prevailing bid is “hitting the bid.” *Id.* at 322. Offers are always higher than bids, and a “bid/offer” (or “bid/ask”) spread is the difference between the prevailing bid and offer. *Id.* at 323. Selling aggressively is accomplished by hitting a bid rather than waiting to have an offer lifted. *Id.* at 1072. Trades are recorded on a pit card (which includes price, volume, date and time, counterparty name and clearing house) and the seller has one minute to record the trade and throw the card into the center of the pit. *Id.* at 2021-24; Ex. S-162. The information on these cards is then recorded into the NYMEX system. Tr. at 1072-73.

57. In 2006, the pit was a busy, loud, crowded place, with people standing elbow to elbow, shoving each other, and even fist fighting on occasion. *Id.* at 1055. The traders were in close proximity with emotions running high as trades were made. *Id.* at 1061-63. Traders had to pay attention to the dynamics of the pit in real time in order to be successful. This meant they had to read each other’s

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<sup>35</sup> Market participants can use financial instruments, such as swaps, which produce at their expiration economic payoffs identical to the payoffs of the futures contracts on the NYMEX but without the delivery obligations. Ex. S-1 at 30, 35. These contracts are NYMEX look-alikes since they look like NYMEX contracts from an economic perspective. The look-alike transactions can be executed on NYMEX (designated by NYMEX as NN Clearport), on ICE, or OTC (between two counterparties or through voice brokers). Ex. S-1 at 31, 34; Tr. at 312-13, 315-16. ICE is a non-regulated exchange. For this case, the most important ICE contract is the natural gas “swap” which settles based on the final settlement price of an expiring NYMEX futures contract. In this decision, reference to exchanges or trading platforms includes ICE, Clearport, and OTC. In an Exchange of Futures for Swap (EFS), a trader simultaneously obtains a future and an offsetting swap position. Tr. at 337.

faces and listen to the pit volume. They also had to monitor aggressive trading. *Id.* at 1078-80, 1085-87. Additionally, they watched the order flow (trading orders coming from the phone clerks manning the phone banks in the perimeter of the pit). *Id.* at 1076-81. Hunter was familiar with these operations. *Id.* at 304-07.

58. Standard natural gas futures contracts traded on NYMEX are for a volume of 10,000 MMBtus to be delivered at Henry Hub during the contract month. Traders can buy or sell a standard NYMEX futures contract in any future month for up to five years into the future.<sup>36</sup> Ex. S-1 at 12-16; Tr. at 298-90. Trading of a particular futures contract terminates on the third to the last business day prior to the month of delivery. The futures contract expires after the last day of trading.

59. The final price of a futures contract is the volume-weighted average price (VWAP) of all the trades made during the last half-hour of trading on the last day of trading. Trading for the expiring prompt-month contract ends at 2:30 p.m. of the last trading day, the last half-hour being the final settlement period. NYMEX futures contracts often experience the most trading in the last few months before they expire. Many trades take place during the last trading day and during the final settlement period.<sup>37</sup> Natural gas futures contracts that are not closed out before expiration are physically settled (there is a post-close session in which traders have a last chance to avoid delivery). This means that a net buyer of futures (taking a long position) for the expiring contract month must either sell an equivalent number of contracts for that month prior to expiration or take delivery of the amount of gas in the contracts. Conversely, a net seller of futures (taking a short position) for the expiring contract must either buy an equivalent number of contracts prior to expiration or make delivery of the volume of natural gas in the trader's short position at the contract delivery location. *Id.*<sup>38</sup>

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<sup>36</sup> Chasman states that the price curve runs out six years. Ex. RES-4 at 9. There are five "winter" months (November through March) and seven "summer" months (April through October). The months coincide with the natural gas storage injection and withdrawal seasons. Tr. at 300-01.

<sup>37</sup> Staff Report, *Excessive Speculation in the Natural Gas Market*: Hearing Before the Permanent Subcomm. on Investigations of the S. Comm. on Homeland Security and Governmental Affairs, 110<sup>th</sup> Cong. (2007), at 32 (Staff Report, *Excessive Speculation in the Natural Gas Market*). Judicial Notice is taken of this document, which was cited in Hunter RB at 16.

<sup>38</sup> A long position benefits if prices rise. A short position benefits if prices fall. Ex. S-1 at 13; Tr. at 310. In addition to buying or selling out of an expiring position, one can do so by executing a "roll," selling one month while buying another, usually an adjacent forward month, or *vice versa*. Tr. at 312.

60. The at-issue days in this proceeding are the February 24<sup>th</sup> close for the March expiring contract; the March 29<sup>th</sup> close for the April expiring contract; and the April 26<sup>th</sup> close for the May expiring contract.

61. Amaranth rarely sold significant volume of prompt-month contracts during the settlement period before the February 24 closing day. Ex. S-1 at 58; Tr. at 987-88. Dr. Kaminski's Figure II shows that Amaranth's trading during the at-issue settlements deviated significantly from its past practice. Ex. S-1 at 58. Prior to the at-issue days, Amaranth sold very little in the settlement period and often bought rather than sold.

8 **Figure II: History of Amaranth's Futures Trading During the Settlement Period,**  
9 **Contract Months September 2004-July 2006**



10

11 Source: The name of the spreadsheet is  
12 CFIC\_EXPIRATION\_DAY\_PROMPT\_CONTRACT\_TICK\_DATA\_XLS (contained in  
13 EXHIBIT S1-5). List of column headings for this spreadsheet attached as EXHIBIT S1-6.

62. The first expiry period day is February 24, 2006, when the March 2006 natural gas futures contract expired. Ex. S-1 at 97. At the beginning of the day on February 24, Amaranth had a 1,729 short March 2006 natural gas futures contracts position on NYMEX. The same day Amaranth held significant short swap positions across all trading platforms. *Id.* At the end of February 23, 2006, Amaranth held 11,943 in NYMEX-equivalent short swaps on ICE and Clearport; at the end of the day on February 24, these had increased to 14,005. *Id.* These

short swap positions in other trading platforms would benefit from falling natural gas futures contract settlement prices.

63. At about 10:47 a.m. on February 24, Amaranth began buying March 2006 natural gas futures contracts on NYMEX. Ex. S-1 at 98. Amaranth entered into intra-commodity spread transactions to flatten out its short NYMEX March 2006 natural gas futures position and EFS transactions to build its long futures position.<sup>39</sup> About two hours later, Amaranth had purchased about 5,000 natural gas futures contracts, giving Amaranth a net long position of about 3,000 contracts. *Id.* The selling of these contracts by floor trading at NYMEX started at about 2:00 p.m., with Amaranth ending the day with a zero position in natural gas futures contract. *Id.*

64. Amaranth sold close to 3,000 futures in the thirty-minute settlement period, with some contracts sold in the post-close session. Ex. S-11 at 10. Trading for this day is shown in Dr. Kaminski's Figure IV.<sup>40</sup> The trades are fairly uniform throughout the settlement period, if a bit "lumpy." The minute-by-minute price of the March 2006 futures during the settlement day is shown in Dr. Kaminski's Figure V.<sup>41</sup>

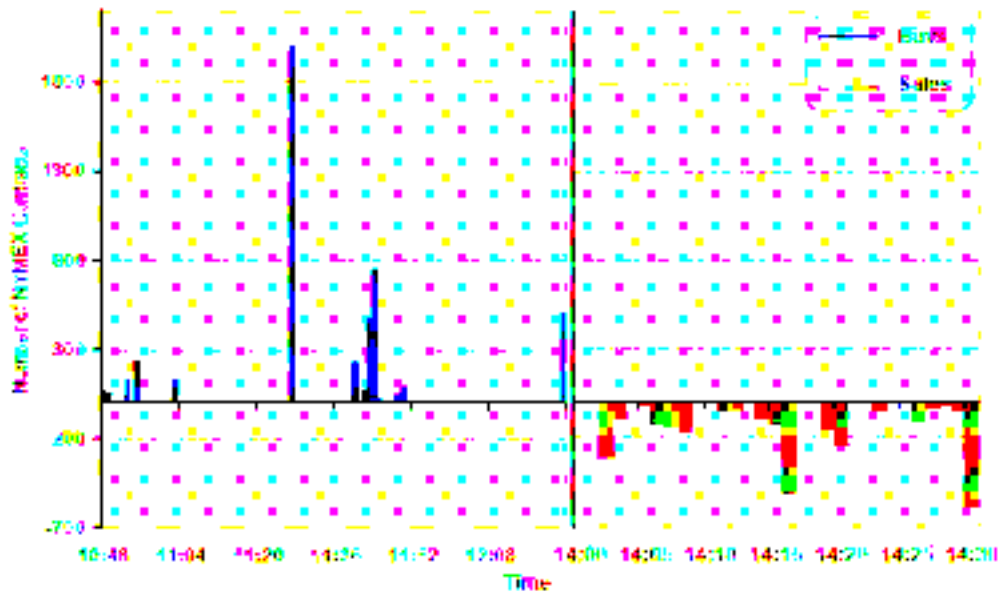
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<sup>39</sup> In each intra-commodity spread transaction, Amaranth acquired a long position in the NYMEX March 2006 natural gas futures contract and an offsetting short position in NYMEX April 2006 natural gas futures. Ex. S-11 at 19-20. In each EFS transaction, Amaranth acquired a long NYMEX futures position and an offsetting short swap position. *Id.* The natural gas futures cost one to two cents per MMBtu more than the swaps. Ex S-10 at 65.

<sup>40</sup>Ex. S-1 at 100.

<sup>41</sup> *Id.* at 101. There is no evidence in this record indicating that any market fundamentals had any bearing on the price during the at-issue settlement periods. Ex. S-10 at 14, 16-19; Ex. S-11 at 4182; Tr. at 1899, 1906. Hunter's untimely attempt to add new testimony into the record concerning weather charts was rejected at the hearing as irrelevant and untimely. There is no evidence of any weather patterns that were not taken into account during price formation before the settlement period.

1 **Figure IV: February 24<sup>th</sup> Anomalous Trading Before and In the Close for the March**  
 2 **2006 Contract**

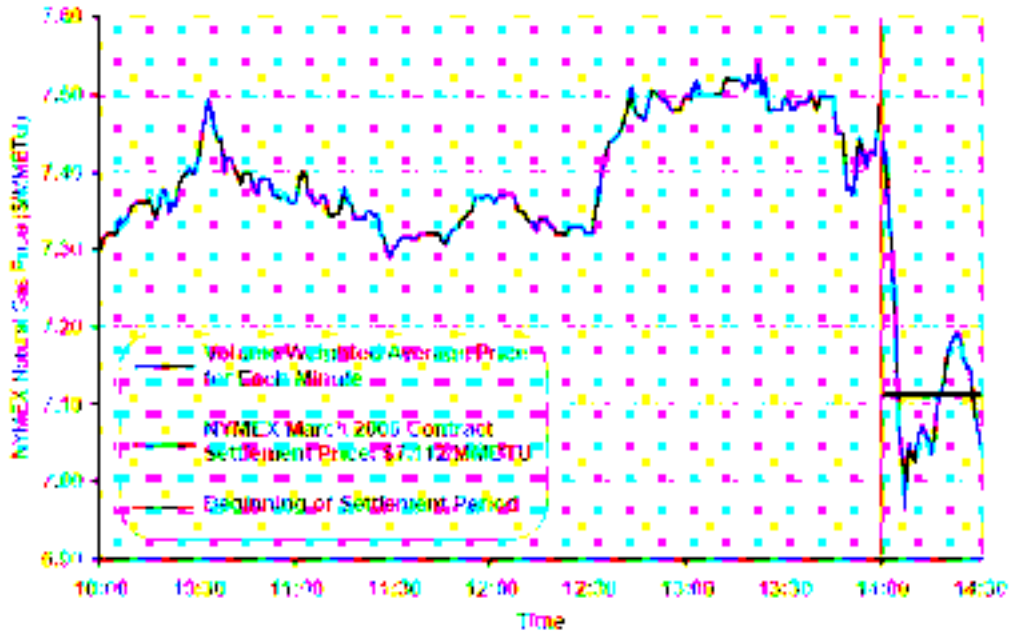


3

4 Source: NYMEX\_00003 (NYMEX NG Futures Contract trade data) (contained in  
 5 Exhibit S1-5).

6

1 **Figure V: NYMEX Trading on March 2006 Contract Termination, February**  
 2 **24, 2006**



3

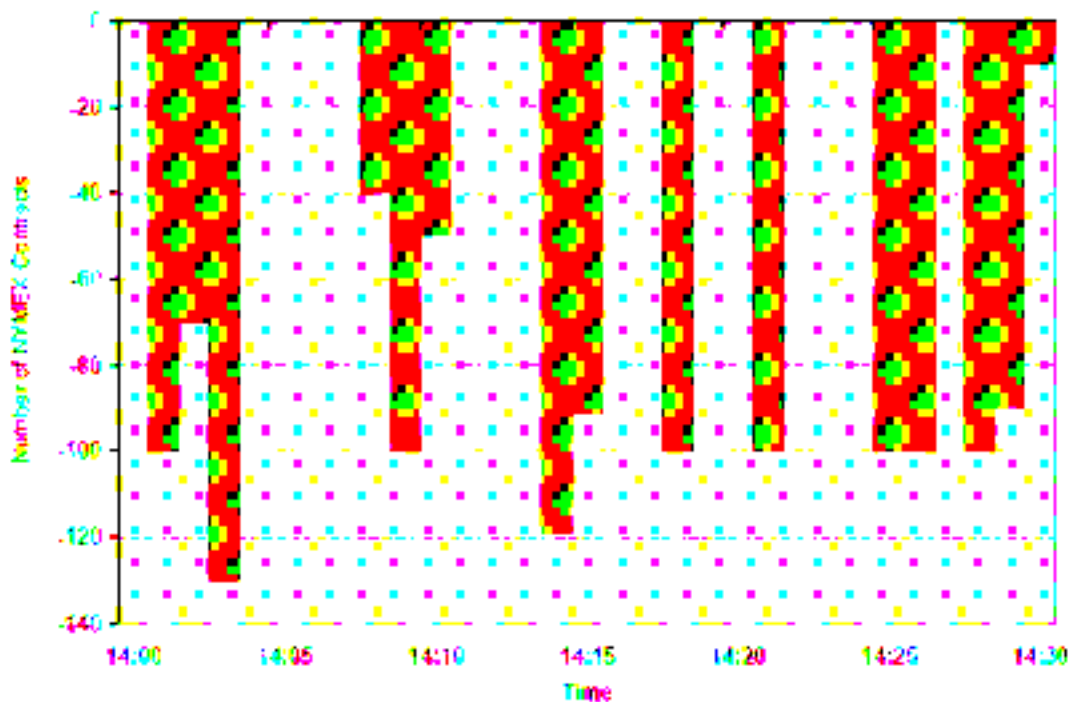
4 Source: NYMEX\_00003 (NYMEX NG Futures Contract trade data) (contained in  
 5 Exhibit S1-5).

6

65. The second expiry period is March 29, 2006, when the April 2006 natural gas futures contract expired. Ex. S-1 at 108. At the beginning of March 29, Amaranth had a long NYMEX position of 1,603 April 2006 natural gas futures contracts and was short approximately 15,000 NYMEX-equivalent April 2006 natural gas swaps on ICE and Clearport. *Id.* at 109. The NYMEX long April 2006 futures position was sold in the last thirty minutes of trading, when the settlement price is determined. *Id.* at 111; Ex. S-162A at ALX 045-46; Tr. at 2061. The ICE and Clearport positions were held until they expired. Ex. S-1 at 109.

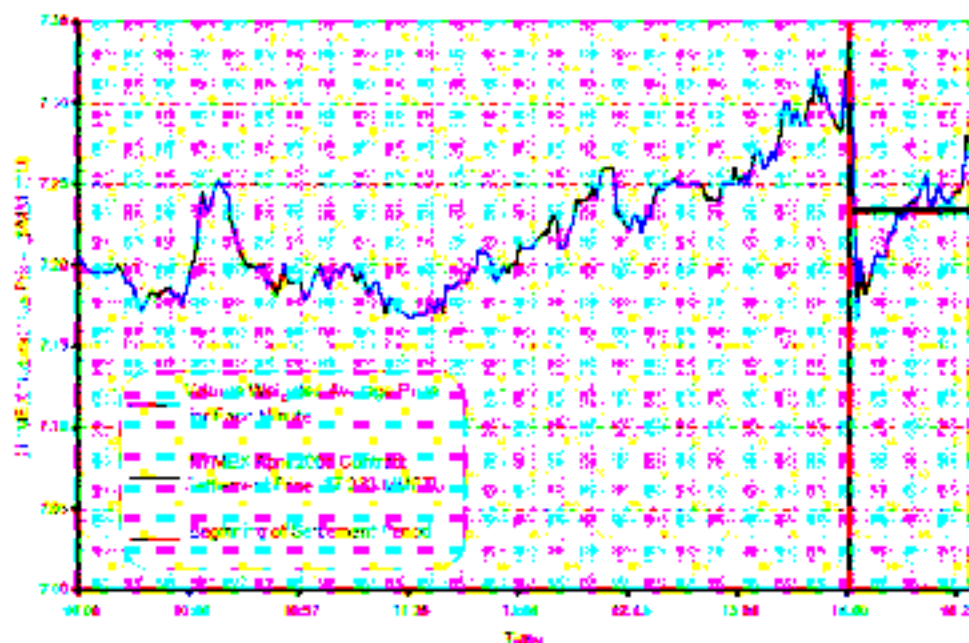
66. Amaranth's trading of long April 2006 natural gas futures during the settlement period is shown in Dr. Kaminski's Figure VI. Ex. S-1 at 110. Trades are again fairly uniform throughout the settlement period. The minute-by-minute price of the April 2006 natural gas futures during the settlement day is shown in Dr. Kaminski's Figure VII. *Id.* at 111.

Figure VI: Amaranth's Trading in the Settlement Period for the April 2006 Contract



Source: NYMEX\_00004 (NYMEX NG Futures Contract trade data) (contained in Exhibit S1-5).

Figure VII: NYMEX Trading on April 2006 Contract Termination, March 19, 2006



Source: NYMEX\_00004 (NYMEX NG Futures Contract Trade data) (contained in Exhibit 51-5).

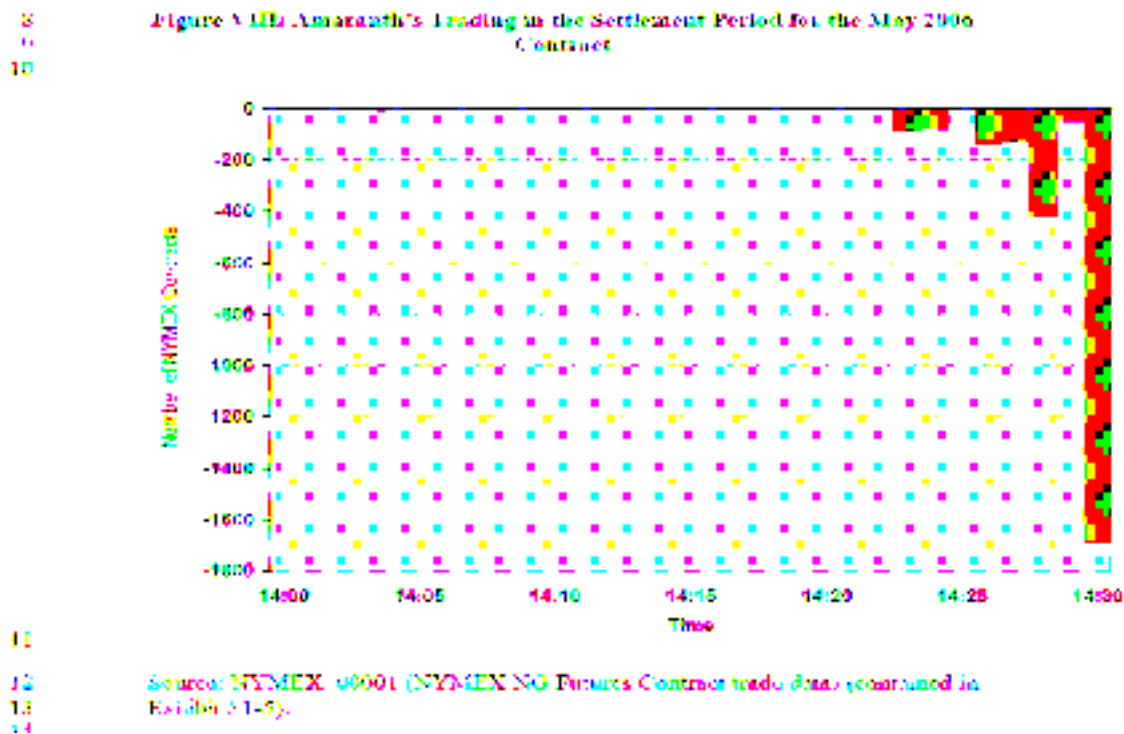
67. The third expiry day is April 26, 2006, when the May 2006 natural gas futures contract expired. Ex. S-1 at 112. During April, Amaranth reversed its large short position for the May contract to a long position on settlement day. On April 26, Amaranth held a 3,044 long May 2006 natural gas futures position. *Id.* at 113-14. Most of the sales happened in the last few minutes of trading during the settlement period. *Id.* at 117. Amaranth also held significant short positions for the June natural gas futures and net 17,590 long June put options position related to the June 2006 contract on this settlement day.<sup>42</sup> *Id.* at 114-15. The long position in NYMEX-equivalent swaps on ICE and Clearport became a short position during April. *Id.* at 115. The short ICE position was increased

<sup>42</sup> Since a long put option gives the purchaser the right to sell the underlying instrument (a futures contract in this case) at a set price, it reflects a bearish outlook, and is similar to a short position, as it becomes more valuable as the underlying instrument price falls. The purchaser of the put is betting that the price of the underlying instrument will fall (so that the purchaser of the put could buy back the underlying instrument for less than the exercise price of the option). See, Reilly, Frank K. and Keith C. Brown, *Investment Analysis and Portfolio Management*, The Dryden Press at 84 (1997). See also, [http://www.optionseducation.org/strategy/long\\_put.jsp](http://www.optionseducation.org/strategy/long_put.jsp).

throughout the day from 5,570 to 16,902 NYMEX-equivalent swaps. *Id.* at 114; Ex. S-10 at 75. On April 26, Amaranth entered into a 10,000 lot spread transaction, “rolling back” part of its short natural gas swap position from June into May. In other words, it went longer 10,000 NYMEX-equivalent June swaps and shorter 10,000 NYMEX-equivalent May swaps. Thus, the net summer position did not change (May and June are both summer months). Summer risk increased for a day, however, because the expiring May contract is more volatile than the June contract. Ex. S-10 at 75.

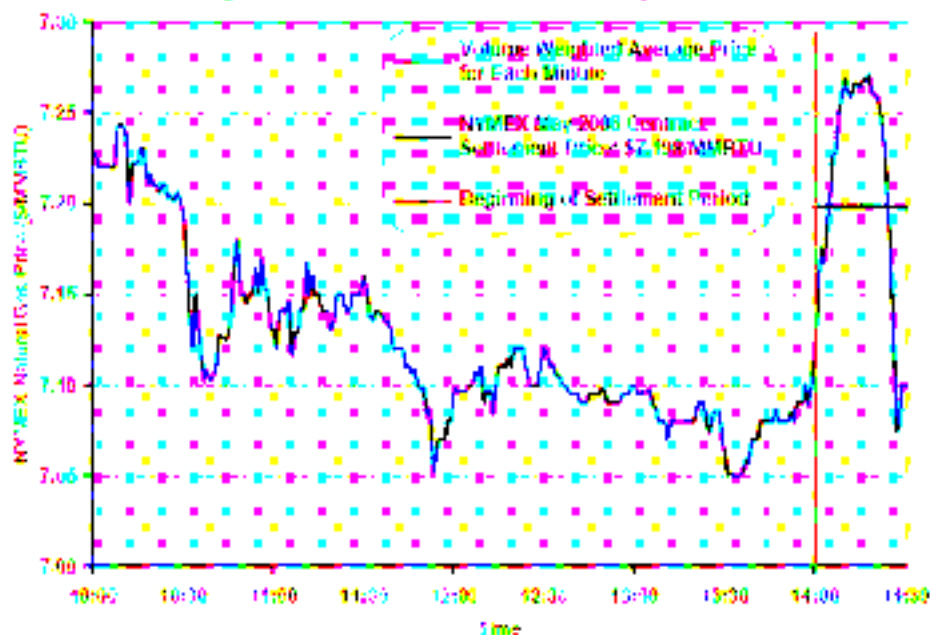
68. During the expiry day for the May natural gas contract, Hunter sold 2,600 natural gas futures in the settlement period. However, Amaranth modified its sales strategy (compared with that of the March and April contracts) by concentrating its sales in the last eight minutes of the settlement period. Ex. S-1 at 117; Ex. S-11 at 16. The concentrated selling may have affected the May and the June prices, since the price for the June 2006 contract (and all contracts save the prompt-month) is determined in the last two minutes of trading. Ex. S-1 at 118-19. In April, some contracts were sold in the post-close session. Ex. S-11 at 10.

69. Amaranth’s trading of long May 2006 natural gas futures during the settlement period is shown in Dr. Kaminski’s Figure VIII. Ex. S-1 at 113. Trades are clearly concentrated in the last minutes of the settlement period. Finally, the minute-by-minute price of the May 2006 natural gas futures during the settlement day is shown in Figure IX of Dr. Kaminski’s Direct Testimony. *Id.* at 114.





7 Figure IX: NYMEX Trading on May 2006 Contract Termination, April 26, 2006



8

9 Source: NYMEX\_00001 (NYMEX NG Futures Contract trade data) (contained in  
10 Exhibit S1-S1).

70. The evidence demonstrates that Hunter's sell orders in the thirty-minute close in the first settlement period caused his brokers to hit bids in order to sell futures. To hit a bid is to accept a buyer's bid to transact at the lower-priced end of the bid-offer spread, thus trading at a lower price than you would have had to, had you been fortunate enough to have your offers lifted.<sup>43</sup> Additionally, testimony shows that on February 24, 2006, Amaranth was a massive seller, forcing its brokers to hit bids to sell the volume. Tr. at 1103-05, 1110. Testimony in this case indicates that on February 24, Amaranth's trader was watched by others in the pit. *Id.* at 1103. The massive order sold by Amaranth had an impact on prices in the pit.<sup>44</sup> Amaranth's broker appeared to be stressed while trading and was having difficulty selling his large orders. *Id.* at 2155.<sup>45</sup> Amaranth's trading

<sup>43</sup> Buyers and sellers must honor the bid-ask prices; they cannot pay less than the bid or sell for more than the offer. Tr. at 1070:8-1071:9. Brokers are obligated to get the best prices for their clients. Given the bid-ask spread, buyers are expected (on average) to buy above the VWAP (they must lift the higher offers to buy) whereas sellers are expected (on average) to sell below the VWAP (they must hit the lower bids to sell).

<sup>44</sup> Hunter himself admits that if a market participant were to buy or sell a significant volume in a short period, it can affect prices. *Id.* at 403.

<sup>45</sup> Usually brokers try to maintain a poker face while trading to mask their

on this date disrupted others in the pit, and a witness testified that he bought so much from Amaranth that he started to panic that he was not going to be able to flatten out his position before the close of the settlement period.<sup>46</sup> *Id.* at 1102. Financial traders holding expiring futures during the closing period must exit their positions (or face possible delivery obligations) and this may result in significant price concessions offered by traders and explains high price volatility in the closing. Exs. S-10 at 26; S-11 at 192, 199-200; Tr. at 2143-44.<sup>47</sup>

71. Another witness testified concerning the February 24 and April 26 closes and the difficulty experienced executing Amaranth's order because of the difficulty in finding liquidity at the close of the settlement period. Tr. at 2153-55, 2157. Testimony shows that when Amaranth's order to sell 2,000 May contracts was placed in the pit, the prices went down. *Id.* at 2069-70. This same witness testified that Amaranth's order to sell 2,000 May contracts was not fully executed during the close because the market did not have sufficient liquidity to handle the order. *Id.* at 2061-68. Another witness testified that a seller might wait until the last eight minutes of the close to sell a large order in order to catch the pit with less liquidity to have a greater impact on price. *Id.* at 1113-14. Indeed, the record shows that Amaranth waited until the last eight minutes of the April close to sell a large number of contracts (discussed below). The timing of sales in this case is relevant because large orders placed near the close may be difficult to execute.<sup>48</sup> *Id.* at 2157.

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intentions. *Id.* at 1102.

<sup>46</sup> This witness testified that he interpreted the massive selling as an indication that Amaranth was exiting a long position or that another market participant was trying to push the price down (to force Amaranth into even more selling), a practice known as "feeding on the fallen corpse." *Id.* at 1105-09.

<sup>47</sup> The evidence concerning price reversal is not given significant weight. Price recovery in this type of case is not conclusive. The trading of prompt-month futures finishes at 2:30 p.m. on settlement day. Arguably, then there are no new prices, no new trading and no way to recover. Ex. S-10 at 20. Hunter's witness Dr. Quinn testified that price recovery after a manipulation could be due to a change in fundamentals or normal price volatility. Tr. at 1912. *In re Bell South Corp. Securities Litigation*, 355 F. Supp. 2d 1350 (N.D. Ga. 2005) is persuasive even though the case deals with equity markets not futures. In *Bell South*, minimal weight was given to evidence of price recovery because it could have resulted from market or other factors. *Id.* at 1371 n. 21.

<sup>48</sup> Amaranth went to post-close sessions in February and April to liquidate its positions. Dr. Kaminiski testified that this would not have happened if the market had sufficient liquidity to absorb large volumes. Ex. S-10 at 25-26.

72. While there were other traders on the same scale as Amaranth during the at-issue expiry periods, those large traders were not in a position to benefit from much larger opposite positions on other exchanges. That is, during these expiries, Amaranth held much larger opposite short swaps positions in other trading platforms than did other traders, which would benefit from falling natural gas futures contract settlement prices. The opposite positions on other exchanges has to be much larger than the NYMEX positions for the manipulation scheme to be profitable, since the cost of selling at low prices fully affects the seller, whereas the corresponding gains on the short ICE position is diluted because the VWAP is a weighted average-price of many trades, and therefore falls less than the decrease in price associated with a subset of total trades.<sup>49</sup> Kaminski's Tables IV, V and VI show that Amaranth had very substantial short positions it expired during the three months in question, ranging from approximately 14,000 to 20,000 NYMEX equivalent swaps.<sup>50</sup>

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<sup>49</sup> Dr. Quinn tries to show that Amaranth was not unique in holding opposite ICE swaps. Exs. RES-2-13, 2-14 and 2-15. However, no other trader operated at Amaranth's combined scale of large futures trades on NYMEX and large opposing swaps on ICE. *Id.* Sempra's short swap position for the March 2006 natural gas contract exceeded Amaranth's, but it only traded 548 NYMEX futures in the settlement period, much less than Amaranth's 2,901. Ex. RES-2-13. Centaurus held substantial prompt-month NYMEX futures and swaps positions in the at-issue months, but its positions were significantly less than Amaranth's. For instance, Centaurus had a large NYMEX short futures position and a large long ICE (swap) position for the March and April contracts but it held far fewer futures and ICE contracts than did Amaranth (for the April contract Centaurus had about half the number of futures and less than one-seventh the number of swaps). Exs. RES-2-13 and 2-14. Centaurus held a larger (in magnitude) futures position than Amaranth for the May contract but Centaurus was short in both NYMEX futures and ICE swaps. Consequently, since Centaurus' was a net buyer of futures during the settlement period its ICE position would have been hurt if Centaurus' purchases pushed up the futures prices. Ex. RES-2-15. Note that Amaranth's positions in these three months was long NYMEX futures and short swaps. The discussions of magnitude refer to the number of contracts held, not whether Centaurus' or Amaranth's positions were long or short.

<sup>50</sup>Ex. S-1 at 97, 109, 112.

14 **Table IV: Amaranth March 06 Natural Gas NYMEX and NYMEX Look-Alike**  
 15 **Positions, End-of-Day, February 23, 2006 and February 24, 2006**  
 16

Platform	Number of Contracts (NYMEX Equivalent) End-of-Day February 23, 2006	Number of Contracts (NYMEX Equivalent) End-of-Day, February 24, 2006	Change from Day to Day
OTC	-25	0	25
ICE	-10,160.5	9,636.75	503.75
CLEARPORT	-1,783.25	4,348.25	-2,601
NYMEX	-1,729	0	1,729

17 Source: AMARANTH\_REG091722\_pos0223  
 18 AMARANTH\_REG091725\_pos0224 (continued in Exhibit S1.5)  
 19

1 **Table V: Amaranth April 06 Natural Gas NYMEX and NYMEX Look-Alike**  
 2 **Positions, End-of-Day, March 28, 2006 and March 29, 2006**  
 3

Platform	Number of Contracts (NYMEX Equivalent) End-of-Day March 28, 2006	Number of Contracts (NYMEX Equivalent) End-of-Day March 29, 2006	Change from Day to Day
OTC	-4,346	0	4,346
ICE	-14,071.5	-13,794	277.5
CLEARPORT	-1,260	-1,260	0
NYMEX	1,603	0	1,603

4 Source: AMARANTH\_REG091745\_pos0213, AMARANTH\_REG091746\_pos0329  
 5 (continued in Exhibit S1.5)  
 6

14 Table VI: Amaranth May '06 Natural Gas NYMEX and NYMEX Look-Alike  
 15 Positions End-of-Day, April 25, 2006 and April 26, 2006

16

Platform	Number of Contracts (NYMEX Equivalent) End-of-Day, April 25, 2006	Number of Contracts (NYMEX Equivalent) End-of-Day, April 26, 2006	Change from Day to Day
OTC	4,203.25	0	-4,203.25
ICE	-5,570	-16,902.25	-11,332.25
CLEARPOINT	-2,640.75	-2,850.25	-179.
NYMEX	3,044	0	-3,044

17 Source: EOD spreadsheet AMARANTH\_REG091765\_pos0425,  
 18 AMARANTH\_REG091765\_pos0426 (contained in Exhibit S1-5).

19

73. Amaranth traded at prices generally below those of other traders and was in a position to benefit from affecting the price based on its very large opposite swap positions in other platforms. Amaranth was a very large trader and, for the most part, the only large seller during the at-issue months in this proceeding. Ex. S-11 Figure 18 at 42 and Figure 20 at 47. Over the entire thirty-minute interval, Amaranth accounted for 19.4, 15.0 and 14.4 percent of market volume for the February close (March futures), March close (April futures) and April close (May futures) respectively.<sup>51</sup> Exs. RES-2-6 and 2-11. Moreover, Amaranth is unique when comparing trading volume and ICE positions. None of the other traders had ICE positions or positions on other exchanges that rivaled Amaranth's (except Sempra in March 2006, discussed *supra*).

74. Dr. Kaminski's Figures XII, XIII and XIV (below)<sup>52</sup> show the VWAP and Amaranth's trades for the at-issue settlement periods. As can be seen, Amaranth generally trades below the weighted-average price for that minute. Since such data do not alone shed light on causation (as distinct from correlation), limited inferences can be drawn from them. Other factors affecting price are clearly at play during the settlement periods and other times; considering that since price varies when Amaranth is not trading, price movements when it does trade cannot

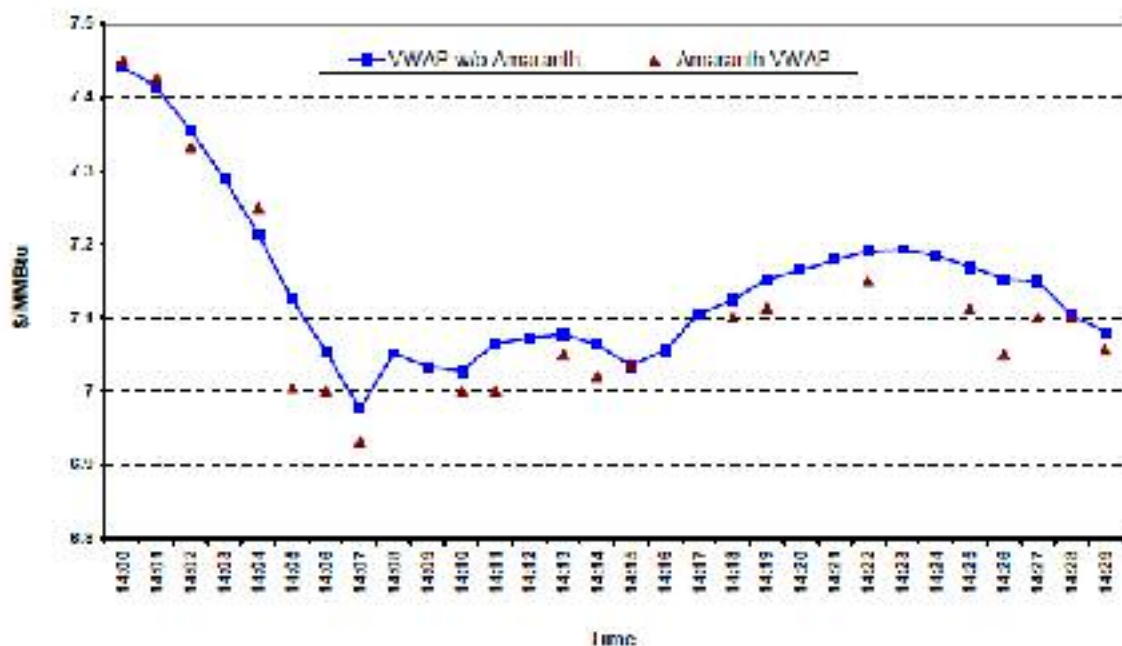
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<sup>51</sup> Quinn presents purchases and sales of large traders. The corresponding percentages of the top two buyers are 15.4 percent and 11.8 percent for the February close, 9.7 percent and 7.6 percent for the March close, and 16.6 percent and 12.9 percent for the April close. Exs. RES-2-11 and RES-2-6.

<sup>52</sup> Ex. S-1 at 134-36.

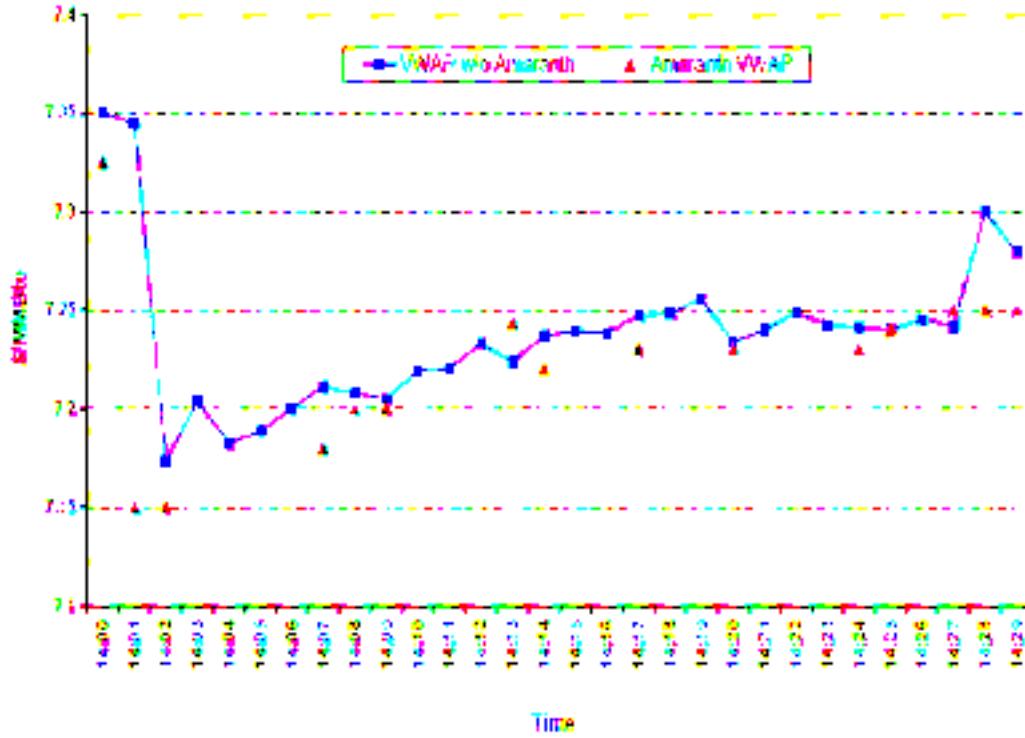
be attributed solely to Amaranth. On the other hand, Amaranth was a very large trader, and tended to trade below the VWAP for the minute (as it would most likely have had to do, since it was a very large seller). While not direct evidence of manipulation, it is consistent with the allegation of manipulation and significant when considered in conjunction with the incentive created by the large opposite swap positions. Alternatively, if Amaranth had consistently had its offers lifted and tended to sell above the VWAP of other traders, this would seem inconsistent with manipulation. Thus, it is found that the observation that Amaranth sold below the VWAP of other traders is consistent with manipulation.

**Figure XII: Comparisons of Volume-Weighted Average Prices (VWAP) for Each Minute on March 2006 NYMEX Natural Gas Futures Contract Termination, February 24, 2006**



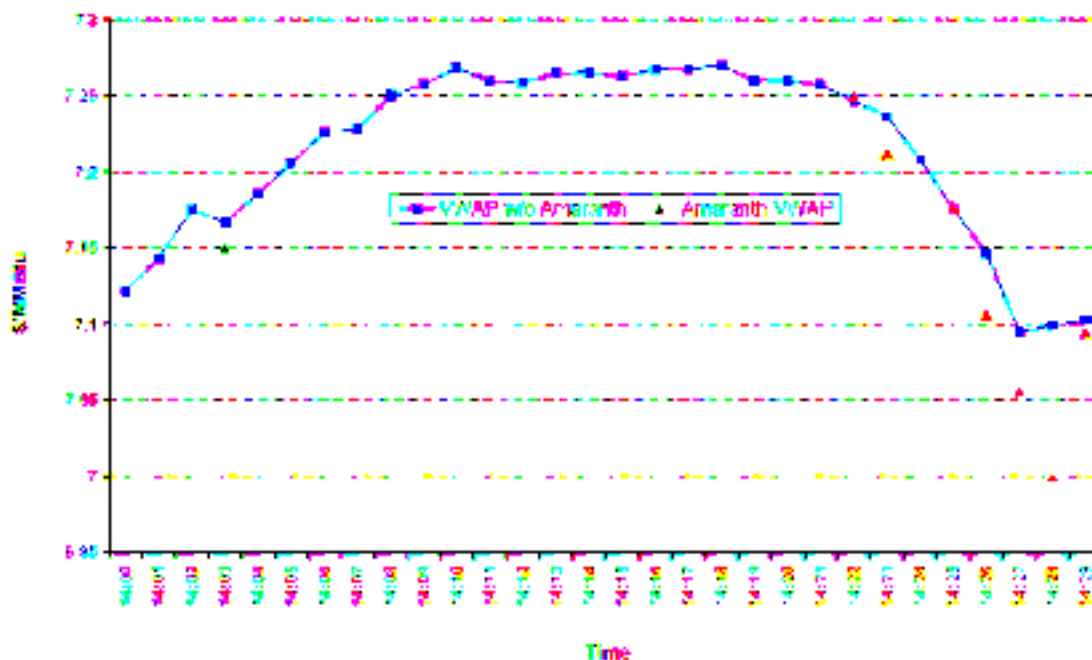
Source: NYMEX\_00003 (NYMEX NG Futures Contract trade data) (contained in Exhibit S1-5).

**Figure XIII: Comparisons of Volume-Weighted Average Prices (VWAP) for Each Minute on April 2006 NYMEX Natural Gas Futures Contract Termination, March 29, 2006**



Source: NYMEX\_0000- (NYMEX NG Futures Contract trade data) (contained in Exhibit S1-5).

**Figure XIV: Comparisons of Volume Weighted Average Prices (VWAP) for Each Minute on May 2006 NYMEX Natural Gas Futures Contract Termination, April 26, 2006**



Source: NYMEX\_00001 (NYMEX NG Futures Contract trade data) (continued in Exhibit Si-5).

75. Hunter challenges Dr. Kaminski's models, alleging that he engaged repeatedly in the "cardinal sins of omitted variable bias and data snooping." Hunter IB at 3. Yet, Enforcement Staff claims that Dr. Quinn omitted even more variables from his analyses than Dr. Kaminski did. In general, data have been used to describe events (descriptive statistics) and to model events (correlation and regression analyses). The descriptive statistics are more reliable than the correlation and regression analyses, since there are fewer options available to display data than to model it. The descriptive exhibits relied upon are indicated throughout this Initial Decision. More weight is thus attached to the former than to the latter, for reasons exemplified in the following paragraphs.

76. Hunters' expert, Dr. Quinn (called to contradict Dr. Kaminski), shows that Dr. Kaminski's regression results are sensitive to specification. This is shown, for example, in Exhibits RES-2-38 through 2-42, with the last one applying each of Dr. Kaminski's models to all months (the diagonal results are Dr. Kaminski's results). While each close is unique in some ways, the models' sensitivity to specification changes undermines confidence in them. Furthermore, Dr. Kaminski



often biases his empirical analyses against Amaranth by using many Amaranth-specific variables but none related to other large traders. For example, his “best model” for the March contract has four of seven variables related to Amaranth (the others were the lagged price and market concentration on the sell and buy-sides). Ex. S-1 at 144. None of Dr. Kaminski’s models specifically include traders other than Amaranth.

77. Dr. King’s core analyses of Amaranth’s trading suffer similar flaws. Her structural break analysis relies on an arbitrary number of breaks, limited to one or two breaks to test “the statistical significance of the major reversal(s).” Ex. S-11 at 123. Her characterization of Amaranth’s trades for the March contract, “high-volume sales in the initial minutes followed by more intermittent trading” (Ex. S-11 at 123), for example, better describes the major price reversal than Amaranth’s actual trades (illustrated in Ex. S-1, Figure IV, at 100). This is discussed in detail at Tr. 2256-81. Furthermore, she fails to show a causal link between her price-breaks and Amaranth’s trades. Ex. RES-21-1 at 41:23 – 42:15. Dr. Quinn applied her structural break model to 23 control months (when Amaranth was not accused of manipulation), and found significant price-breaks in 83 percent of the months for the prompt contract and 74 percent of the months for the prompt-next contract. Exs. RES-21-12; RES-21-1 at 43:11-22; Tr. at 2392.

78. Similarly, Dr. King’s spread analysis is not credible. For example, regarding Figure 78 (Ex. S-11 at 155), Dr. King did not dispute the representation that, of the six observations when the prompt-next (PN1) and prompt-next-next-next (PN3) traded in the same minute between 2:00-2:30 p.m., for the April 26, 2006 expiry, five occurred before Amaranth significantly entered the market, admitting the reversal she attributes to Amaranth could not be due to Amaranth’s trading. Tr. at 2347-52. Furthermore, in her summary table, she exaggerates the strength of her findings. Ex. S-11 at 159, Figure 82. Dr. King consistently selected the strongest statistical results for the cells in Figure 82 that referred to multiple cells in the source tables, whether the comparison period is nearer or farther away in time from the settlement period, and includes “Rs” to signify reversals which are not statistically significant. Tr. at 2355-70.

79. While Dr. Quinn alleges that Dr. Kaminski’s analyses are flawed, Dr. Quinn’s analyses suffer from many of those same flaws. A substantial portion of Dr. Quinn’s analyses are based on correlation. *E.g.*, Exs. RES-2-18 through 2-27. The correlation between two variables is in important respects equivalent to a simple regression of those same two variables (for example, a regression of price on Amaranth’s trades). Hence, Dr. Quinn’s correlation analyses excluded every variable he claims Dr. Kaminski excluded from Dr. Kaminski’s regression analyses, and more. Dr. Quinn repeatedly argues that a lack of correlation implies a lack of causation in his price recovery analysis. He is wrong theoretically and

empirically. Theoretically, correlation measures the linear association between the two variables being studied. Thus, nonlinear relationships may not be picked up with correlation analysis, as Dr. Kaminski's testimony demonstrates. Ex. S-10 at 43-45. Empirically, other factors can offset an effect of interest, as Dr. Quinn himself notes, so that no correlation is observed. Ex. RES-2-1 at 43:13-15. The price variation when Amaranth does not trade implies that other factors are clearly at work. Moreover, Dr. Quinn narrowly looks for price recovery based on the last two minutes of the settlement period. Ex. RES-2-28. This analysis is also quite sensitive to the underlying assumptions, as demonstrated by Dr. King. She shows that the results of many of Dr. Quinn's price recovery analyses are reversed merely by using data from one minute prior to the minutes used by Dr. Quinn. Ex. S-11 at 110-15, Figures 49. Consequently, Dr. Quinn's correlation testimony is not found persuasive either.

80. The evidence demonstrates that Amaranth's at-issue trades were profitable. Amaranth's Profit and Loss (P&L) reports show \$45 million profit on February 24<sup>th</sup>. Ex. S-48; Tr. at 443. Hunter stood to receive significant compensation from the profitability of his book. Ex. S-1 at 122-28, 147.<sup>53</sup> He would be compensated based on the trading desk's profitability, and on the fund's overall profitability. Additionally, Amaranth structure allowed for incentive payments contingent on exceeding the previous year's peak results. *Id.* at 122-28. Hunter's principal strategy during the at-issue periods was a summer-winter spread (generally short summer/long winter). Thus, the portfolio would benefit if summer prices went down relative to winter prices. The portfolio would also benefit from changes in spreads in the other months, since it was long in 2007 and short 2010. Amaranth's portfolio was always "net long." Tr. at 319-20; Ex. S-10 at 72.

81. Hunter argues that he was only concerned with spreads, and that the focus should be on his entire portfolio rather than individual elements of the portfolio. The gains and losses on elements of a spread are not, however, symmetric. For example, suppose that the price of the prompt-month contract is manipulated downward (benefiting a short position), and that drives down the price of the prompt-next contract the same amount (harming a long position). The gains for the prompt-month are realized on settlement day, whereas the losses for the prompt-next month are temporary, since they will most likely be reversed once

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<sup>53</sup> Amaranth went out of business on or about September 2006. However, during the months at-issue in this case, Hunter had a profit motive; he stood to make at least seven percent of the desk's net profits. Ex. S-1 at 123.

manipulation ends.<sup>54</sup> Therefore, the fact that a portfolio is solely based on spreads does not preclude profitable manipulation of the prompt-month contract.

82. The Commission specifically stated that the Anti-Manipulation Rule prohibits (1) fraudulent or deceptive behavior (2) with the requisite scienter, (3) in connection with the purchase or sale of jurisdictional natural gas or electric energy. Hearing Order, *supra* note 7, at P 72. The Commission specified that the central issue in this proceeding is whether Hunter's "activity in the natural gas futures contract market on the days in question was intended to create a price that was not reflective of supply and demand, and if so, whether the activity resulted in artificial prices in that market." *Id.* at P 64.

83. Hunter argues that Enforcement Staff did not prove that he caused an artificial price on the at-issue days. According to Hunter, Staff had to prove that the trades were not intended to be at prevailing price and were not conducted for legitimate business reasons. The Commission rejected these claims. Hearing Order, *supra* note 7. The Commission stated that "specific false statements need not be made in order to trigger potential liability under NGA section 4A". *Id.* at P 64. "Open market transactions send false signals to market participants if such transactions are undertaken with the intent of creating a false price." *Id.* at P 64-65, citing *Markowski v. SEC*, 274 F. 3d 525 at 529 (D.C. Cir 2001). The Commission rejected Hunters' contentions that some other form of deceptive conduct is required to prove liability under NGA Section 4A. The Commission stated: "intentional manipulation of market prices for the purpose of benefitting other instruments in the actor's portfolio is actionable, even in the absence of evidence that specific false statements were made." *Id.* at P 65.

84. The evidence in this case compels the conclusion that Hunter had the incentive to lower the price to benefit his other positions in other trading platforms during the at-issue months. The more he was able to lower the price of the prompt-month contract, the more he would benefit (once the post-manipulation recovery is considered). Additionally, he took the actions necessary to effectuate his scheme. He traded significant volume (a condition necessary for and consistent with a manipulation scheme) in the closing period. His traders hit bids, which almost guarantees a lower price (again consistent with a manipulation scheme), and generally traded at prices below those of other traders.<sup>55</sup> He acquired significant positions in the other platforms which would profit from his

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<sup>54</sup> Evidence in this record suggests that recovery from manipulation is quick. Exs. RES 2-1 at 6, 40-42; S-11 at 63, 82 and 166.

<sup>55</sup> See, Figures XII-XIV, *supra* P 74.

lowering the price on NYMEX. Accordingly, it is found that his trading was fraudulent or deceptive, satisfying the first prong of Section 1c.1.<sup>56</sup> Hunter's conduct together with the requisite scienter and his lack of credibility (both discussed below) establish the rule violation in this case.

## 2) Requisite Scienter

### Party Contentions

#### *Enforcement Staff*

85. Enforcement Staff asserts that Hunter had the requisite scienter under the Commission's Anti-Manipulation Rule<sup>57</sup> because he engaged in conduct that was

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<sup>56</sup> As the Commission stated, manipulation can be illegal solely because of the actor's purpose. *See, Markowski, supra* P 83; *see also, SEC v. Masri*, 523 F. Supp 2d 361 (S.D. N.Y. 2007) (holding that, when an investor conducts an open-market transaction with the intent of artificially affecting the price of a security, rather than for legitimate economic reasons, it can constitute market manipulation). Indeed, the only definition of market manipulation that makes sense is subjective -- it focuses entirely on the intent of the trader. In *Masri*, the transactions involved "marking the close," or attempting to influence the closing price of a security or stock by executing purchase and sale orders at or near the close of the market. The SEC in *Masri* alleged that the defendants conducted activity within several minutes of the close; the transactions constituted a large majority of the purchases that day; they had outstanding put options expiring that day that they did not wish to be assigned; and by purchasing 200,000 shares they were able to avoid the assignment of the options. *Masri*, 523 F. Supp 2d at 372. In *Masri*, the Court cites the article "*Should the Law Prohibit 'Manipulation' in Financial Markets?*", for the definition of manipulative trades as "profitable trades made with bad intent," or trades that meet certain conditions, such as: the traders intended to move prices in a certain direction, the traders had no belief that the prices would move in this direction but for the trade, and the resulting profit came solely from the traders' ability to move prices, not from possession of valuable information. 523 F. Supp 2d at 372, citing Daniel R. Fischel and David J. Ross, *Should the Law Prohibit "Manipulation" in Financial Markets?*, 105 Harv. L. Rev. 503, 510 (1991). Unlike Section 10b-5 of the SEC, upon which the Commission modeled its Anti-Manipulation Rule, the CFTC has a four-prong test. *DiPlacido v. CFTC*, 2009 U.S. App. LEXIS 22692 (2d Cir. Oct. 16, 2009) (finding manipulation where a trader "intentionally paid more than he would have had to pay for the purpose of causing the closing quotation to increase"). *But see, Radley*, 2009 WL 3013457 at \*11 (stating that artificial price is uncertain and unconstitutionally vague as applied to the facts of *Radley*, and that the criminal indictment did not allege behavior clearly outside of the legitimate forces of supply and demand or unquestionable criminal acts).

<sup>57</sup> 18 C.F.R. § 1c.1 (2008).

willful and deceitful as to the NYMEX natural gas futures settlement price, and reckless to the secondary physical market impact during the at-issue months. Enforcement Staff IB at 16. Hunter designed his trades to create artificial prices that did not reflect supply and demand. *Id.* Hunter understood that lower settlement prices would enhance the value of his expiring natural gas swaps position. *Id.* Hunter also understood that the settlement price of the natural gas futures contract sets the price of some physical transactions. *Id.*

86. According to Enforcement Staff, Hunter believed that traders could move market prices and provided examples of this. *Id.* at 18. Hunter planned to move market price through what he called an “experiment [sic]” in an instant message on February 24, 2006. *Id.* at 17. Hunter testified that he was referring to a plan to make sure that Amaranth’s book was in balance. *Id.* Yet, Enforcement Staff contends that balancing the book was a typical practice for Amaranth, and therefore would not require a plan. *Id.* Hunter would have needed a plan to execute Amaranth’s highest volume in history, as it did on February 24, 2006. *Id.* Additionally, Hunter departed significantly from Amaranth’s past trading practices when he traded large volume during the at-issue settlement periods.

87. Amaranth’s trades during the at-issue periods were at prices significantly below the market price, providing further evidence of *scienter*. *Id.* at 23. Because Hunter sold large volumes of futures before the close of the settlement period, priority was placed on selling size rather than on obtaining a good market price. *Id.* at 18. Consequently, Hunter was not attempting to make money on futures, but to lower the settlement price and make money elsewhere. *Id.* at 23. Enforcement Staff adds that the consistently low futures prices cannot be attributed to broker’s error because they occurred over three consecutive months during the months that Amaranth traded in large volume in the settlement period. *Id.*

88. Hunter anticipated a response in the NYMEX natural gas trading pit to his high-volume trades during the at-issue periods. *Id.* at 19. Hunter was generally familiar with trading in the NYMEX pit. *Id.* at 20.

89. Hunter’s incentive to manipulate the market was to improve Amaranth’s financial position and thereby earn greater personal compensation. Enforcement Staff IB at 17, RB at 6-7. Under Amaranth’s structure, a trader’s compensation depended on the results of the trading desk and the overall fund, as reflected in the firm’s P&L numbers. Enforcement Staff IB at 23-24. Amaranth also granted incentive payments that were contingent on exceeding the prior year’s peak results. *Id.* A lower NG futures contract settlement price on February 24, 2006 benefited Amaranth’s overall position that day. *Id.* at 17. This is reflected in the P&L reports, which show a \$45 million profit for February 24, 2006, including substantial gains in individual strategies in the book, such as Skew2 and

StraddleRoll2. *Id.* at 24. The March swap positions that benefitted from a lower March settlement contract price were assigned to those strategies. Enforcement Staff IB at 24. Whether Hunter profited more or less in the March and April expiries does not undermine the argument that he had financial incentive to manipulate market prices. Enforcement Staff RB at 7. Furthermore, Enforcement Staff avers that it does not have a burden of establishing that Hunter unjustly profited from his conduct. *Id.*<sup>58</sup>

### February

90. Enforcement Staff addresses each of the three at-issue months to establish that Hunter acted with the requisite *scienter* during each period. Instant messages reflect Hunter's plan to manipulate the settlement price on February 24, 2006. Hunter knew that the value of short swaps that would expire on close would increase if the settlement price for the corresponding NYMEX natural gas futures contract fell. Enforcement Staff IB at 24, RB at 8. Hunter provided no credible explanation for his actions. Enforcement Staff RB at 8. The March contract price did fall, and Amaranth had the second best month in its history. *Id.* Hunter's explanation that he was indifferent to single month prices because he was focused on his entire portfolio, including prices further out the curve, is not credible. *Id.* However, individual month prices are significant, particularly considering that portfolios and spreads consist of individual month prices. *Id.*

91. Enforcement Staff disagrees with Hunter's allegation that market participants commonly understood "MoC" to mean "ratably," and notes that the NYMEX definition of MoC does not refer to ratable trading. Enforcement Staff IB at 25. It is undisputed that Hunter ordered the sale of 3,111 contracts during the expiry, and that trading such a large volume over the thirty-minute time period constitutes a flood of the market. *Id.*

92. Hunter was able to make predictions about likely market activity and he created risk stress scenarios that analyzed potential impacts of various market possibilities or alternatives. *Id.* at 26-27, RB at 8. The status of winter prices in the middle of February 24, 2006 was not as relevant as the impact of a potential drop in March prices. Enforcement Staff IB at 27, RB at 8. Hunter would have been particularly interested in the March contract because front month contracts are more volatile and have more influence on an overall portfolio. *Id.* Hunter had access to stress scenarios on February 23, 2006 and knew that a "smashed" settle would benefit his book the next day. Enforcement Staff IB at 26-27. The P&L shows that Amaranth profited when near term prices fell. *Id.*

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<sup>58</sup> Citing *Markowski*, 274 F.3d at 529.

93. Hunter's explanation for his trading on February 24, 2006 is not credible. *Id.* at 29. Hunter claimed that he tried to "beat" the settlement price and earn a "few cents" per contract on the overall EFS related transaction. *Id.* The idea was that short swaps would settle at the natural gas futures contract settlement price, and he hoped he could sell futures for more on average than the settlement price. Enforcement Staff IB at 29. Enforcement Staff says that this contradicts Hunter's other argument, that he focused on his overall book of 60 or more months of contracts and relative spreads, and was not focused on one-day price movements or the front month contract. *Id.*

94. Another reason Hunter's explanation is not credible is that a penultimate day rally did not herald an expiry day rally. *Id.* at 30. The options expiration that occurred on the penultimate day ended before the expiry day. *Id.* Hunter thought that a trader who benefited from a squeeze in the spread between the March and April contracts on February 23, 2006, would benefit from such a squeeze the next day. *Id.* Enforcement Staff asserts that options traders would not be able to mimic the penultimate day activity because the March options would have expired. *Id.* Furthermore, Hunter claimed elsewhere that artificial price movements possible during the two-minute penultimate day settle were not possible during the thirty-minute settlement period on an expiry day. *Id.*

95. Enforcement Staff adds that, contrary to Hunter's claim that he anticipated buying pressure on the expiry day, he expected the market to drop from selling pressure. *Id.* at 31, RB at 13. Hunter's short March position also demonstrates that Hunter anticipated selling pressure, not buying pressure. Enforcement Staff IB at 31. If he thought that the March price behavior would mimic the penultimate day, he would have disposed of his short March positions, but he did not. *Id.*

96. Additionally, it would have been virtually impossible for Hunter to beat the settlement price. *Id.* Hunter obtained futures and swaps primarily through EFS transactions, which traded at a premium of two cents. *Id.* Therefore, Hunter would have had to beat the settlement price by much more than a few cents in order to make a few cents of profit on the transactions. *Id.* at 32.

97. Hunter's explanations contain other contradictions. *Id.* Hunter said that his 3,000 sales were insufficient to cause a "problem or bad impact on the market" because "3,000 in a half an hour is not a lot of volume." *Id.* Yet Hunter also said that his experiment required that the pit know that he had a lot of futures to sell, so that buyers would come to him and he could sell at higher prices than if locals had not been involved. *Id.* Also, if Hunter had anticipated on February 24, 2006, the same activity as the day before, a better strategy would have been to wait and sell when prices were high. *Id.* Instead, Hunter sold from the beginning and throughout the thirty-minute settlement period. *Id.*

98. Further, Hunter did not need to acquire the futures through EFS. *Id.* at 33. If he wanted futures to sell, he could have bought them outright. *Id.* He also could have sold a later month through a spread and then bought back the later month, thereby obtaining futures to sell but not changing his books' net position. *Id.* Enforcement Staff states that the EFS position increased Hunter's overall short position in March swaps that would benefit from a lower settlement price, and would decrease losses on lower futures selling prices. *Id.*

99. In addition, Hunter claimed that beating the close would require getting offers lifted, rather than having his broker hit bids. *Id.* Yet no evidence indicates that Hunter instructed his brokers to aim to have their offers lifted, and Hunter does not remember giving such an instruction. *Id.* Enforcement Staff opines that a sophisticated trader would not apply a strategy that depended on broker performance but fail to instruct the brokers accordingly. *Id.* Amaranth's broker hit bids repeatedly and consistently sold under the average prices of others in the market. *Id.* at 34. Finally, no contemporaneous documents discuss the strategies that Hunter now claims, sell ratably, beat the settlement, buy aggressively, or get offers lifted to earn a few cents. *Id.* Enforcement Staff maintains that Hunter traded futures with the purpose and intent to lower March settlement prices to benefit his short March positions.

### **March**

100. Enforcement Staff argues that Hunter also acted with the requisite *scienter* to manipulate NYMEX prices for the April contract. *Id.* at 34, RB at 15. Donohoe, Hunter's execution trader, was in Greenwich and Hunter was in the Maldives on March 29, 2006, when trading occurred for the April contract expiration. Enforcement Staff IB at 35. Amaranth traded a large prompt-month futures position in the settlement period and had a much-larger short prompt-month swap position. *Id.* This was the second time that Amaranth had ever traded such large volume in the natural gas futures final settlement period. *Id.*

101. Hunter and Donohoe had an express but undocumented or an implied agreement to repeat the successful trading activities in February to suppress the settlement price. *Id.* at 36. Enforcement Staff sets forth the following factors in support of their position: the pattern of unusual trading in the previous and following months, Donohoe's lack of authority to design trade strategy, and the fact that the futures and swap positions were in Hunter's "energy2" book. *Id.*

102. Hunter's absence that month would not have precluded Donohoe from carrying out a manipulative trading scheme. *Id.* Hunter was primarily responsible for Amaranth's natural gas book, and Donohoe did not have authority to create a trading strategy for the firm. *Id.* at 35. Hunter claims that, while travelling, he



only communicated with Donohoe regarding an employee's departure from Amaranth. *Id.* However, Hunter and Donohoe could have also discussed trading activities. *Id.* In addition, Hunter knew at the time that he was overall short April. *Id.* He therefore also knew that the portfolio would benefit from lower April prices. *Id.* Moreover, Hunter did not claim afterwards that Donohoe violated his trading instructions or strategy that month. *Id.*

### April

103. Hunter acted with requisite *scienter* to manipulate the May contract. *Id.* at 36, RB at 15. Amaranth's trading in the last eight minutes of the settlement period on April 26, 2006 impacted the settlement price for the May contract and the price of the prompt-next (June 2006) contract. Enforcement Staff IB at 37. Enforcement Staff explains that the prices of the May and June contracts were highly correlated. *Id.* Trading for both contracts was conducted at the same time and in the same pit, but May settled based on the thirty-minute expiry period, whereas June settled based on a two-minute expiry period. *Id.* Amaranth had significant short May and June positions. *Id.*

104. On April 26, 2006, Hunter changed his strategy to concentrate his futures selling at the end of the settlement period. *Id.* at 36. Hunter does not have a credible explanation for his trading on April 26, 2006. *Id.* Hunter testified that he intended to reduce his overall position by selling long winter contracts while expiring the short May swaps position to maintain a (relatively) balanced portfolio. *Id.* Expiring swaps to match reduced winter positions creates a benefit if the natural gas futures settlement price fell. *Id.* at 38.

105. However, Hunter could not adequately explain how accumulating futures supported his goal of reducing Amaranth's overall position. *Id.* Further, Hunter retracted from the suggestion that the sale of natural gas futures during the close on April 26, 2006 was part of a position reduction strategy. *Id.* Amaranth's natural gas positions actually increased between March 2006 and September 2006. Enforcement Staff RB at 16. Between April 26 and April 27, 2006, the portfolio's overall spread increased, as the summer position got shorter and the winter position got longer. *Id.* Enforcement Staff concludes that Hunter defied orders to reduce his book. *Id.* Moreover, Staff points out a number of ways Hunter could have reduced his book without selling futures into the close. *Id.* Instead, Hunter increased his short May position, which he would have to resolve by the end of the day.

106. Contrary to Hunter's claim, the decision to sell futures in the close could not have been dependent on winter length sales. *Id.* Enforcement Staff asserts that there is no contemporaneous evidence showing that selling winter earlier in

the day on April 26 was unviable or that the market for winter contracts changed during the day. *Id.* at 42. Additionally, Amaranth placed an order to sell futures minutes before Donohoe executed a winter length sale. Enforcement Staff IB at 41.

107. Enforcement Staff also refutes Hunter's claim that he would have been harmed by a lower settlement price in the May contract. *Id.* at 43. Hunter also stated that the lower settlement would have harmed him because he had rolled June contracts into May in a spread trade with Centaurus Advisors, L.L.C. (Centaurus) that day. *Id.* Hunter was actually short in May and June. Enforcement Staff IB at 43; Enforcement Staff RB at 17. Therefore, when May and June settlement prices dropped, his May and June short positions, including his June put options, benefited. Enforcement Staff IB at 43, RB at 17. Amaranth's purported \$17 million loss on the Centaurus trade was an opportunity cost, not an actual loss. Enforcement Staff RB at 17. Hunter's short June positions would have benefited more if he had not rolled them into May as part of the transaction with Centaurus. *Id.* Additionally, if the May contract had not unexpectedly rallied during the first 20 minutes of the expiry, Hunter would have gained more on the May contracts. *Id.*

#### *Hunter*

108. Hunter states that the evidence in this case does not prove that he intended to create an artificial price on the at-issue expiry days. Hunter IB at 30. A trader cannot manipulate the market to a price that does not reflect supply and demand by engaging in legitimate business transactions. *Id.* Hunter maintains that if a trade is made at prevailing price for a legitimate business reason, then it is irrelevant whether or not the trader knows that a transaction could affect prices to his benefit. *Id.*

109. According to Hunter, Enforcement Staff must prove that his trades were not executed at prevailing price or for legitimate business reasons. *Id.*<sup>59</sup> Hunter adds that Enforcement Staff must demonstrate that Hunter lied or held out a pretext for manipulating price. Hunter IB at 61.<sup>60</sup> Finally, if Hunter and Enforcement Staff make equally credible cases, Enforcement Staff cannot prevail. *Id.* at 30. Hunter asserts that Enforcement Staff has not met these burdens. *Id.*

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<sup>59</sup> Citing *In re DiPlacido*, 2008 CFTC LEXIS at 10 and *Radley*, 2009 WL 3013457 at 9.

<sup>60</sup> Citing *Radley*, 2009 WL 3013457 at 9.

110. Hunter further contends that he thought it was impossible for a financial trader to manipulate the settlement price by selling futures contracts, and therefore could not have had the intent to do so. Hunter RB at 16. He agreed with Amaranth's August 29, 2006 letter to NYMEX alleging that a participant buying swaps on ICE manipulated prices over a thirty-minute settlement period. *Id.* However, Hunter clarifies that the manipulation alleged in that letter did not pertain to a financial trader using futures to manipulate price, and is therefore distinct from the manipulation charges in this proceeding. *Id.*

111. Additionally, Hunter argues that, because his portfolio consisted of a series of correlated spreads, he would not have tried to depress prices of a particular futures contract. Hunter IB at 30. Hunter contends that the prices of expiring short swap positions were not significant to him beyond their role as offsetting positions in his portfolio. *Id.* at 32. His portfolio, or book, included swaps and options positions over more than sixty months. *Id.* The book's value was based on all of these positions. *Id.* For example, in February 2006, Amaranth had positions in futures, swaps and options for the remaining months of that year, and for the years 2007 through 2011. *Id.* The contracts are traded on NYMEX and ICE every day and prices change daily. *Id.*

112. The book's value was based on spreads, and his only concern was how the spreads widened or contracted. *Id.* at 32. Hunter explains that his book did not make or lose money based on the price movement of one month. *Id.* at 33. Given this context, Hunter would need to know how the entire 60 or 72 months of the natural gas forward curve moved during a time in order to determine how a price change in one contract could impact book profit. *Id.*

113. In 2006, his book was based on two primary spread strategies: a short summer and long winter position, and a long calendar year seven (2007 or "Cal 7"), short calendar year ten (2010 or "Cal 10") position. *Id.* at 33. Therefore, if the prompt-month contract rose or fell, Hunter's book could have lost or gained money, depending on the impact on the spreads. *Id.*

114. Next, Hunter contends that since his book was a series of spread positions, even if Hunter could depress the price of an expiring contract by trading futures in the expiry, he could not predict whether the fall would benefit or damage his book. *Id.* at 34. He would first need to know the impact on prices of the other side of the spread, which Hunter argues is impossible. *Id.*

115. Hunter avers that Enforcement Staff's manipulation theory is based on the misconception that a trader with offsetting positions could benefit from a change in the expiring month price. *Id.* at 35, RB at 3. Hunter argues that the instant messages offered as evidence must be understood within the context of his spread

strategies. Hunter RB at 3. For instance, on February 23, 2006, Hunter told Donohoe to ensure that he had a lot of futures to sell in the expiry the next day. Hunter IB at 34. Enforcement Staff claims that this supports the theory that Hunter planned to manipulate the settlement price and profit from expiring front month short swap positions. *Id.* Hunter responds that he could not have known when he sent the instant message whether a lower settlement price would have benefited or hurt his overall position. *Id.* Hunter explains that stress scenarios are plausible, not actual, scenarios and cannot accurately predict price changes. Hunter RB at 3. Additionally, Hunter contends that the stress scenarios helped him evaluate how a change in spreads could impact his overall portfolio, but that they could not forecast particular price movements. *Id.*

116. In another instant message, dated February 24, 2006 at 12:14 p.m., Hunter said that “JV7 is strong,” which was “pushing up the summer winter and 7/10.” Hunter IB at 35. This instant message demonstrates the importance of interpreting his communications within the context of his spread positions and overall portfolio. Hunter meant that the long positions, winter and cal 7/cal 10, were doing well and that the short/long spreads were not contracting. *Id.* Hunter emphasizes that, a fall in short summer contracts would have benefited his book because the spread would have widened. *Id.* In contrast, if the long positions were not trading strong, a fall or a rise in the summer contracts would not benefit and might harm his book. *Id.*

117. The second reason that Hunter contends that Enforcement Staff’s manipulation theory fails is that there were roughly equal numbers of buyers and sellers during the settlement periods, precluding traders from believing that they could depress prices. *Id.* at 36. Hunter notes that phone clerk Vincent Rufa<sup>61</sup> (Rufa) and pit trader James DeLucia (DeLucia)<sup>62</sup> testified that a trader would never expect to be able to move market prices with a large buy or sell order. *Id.* at 36-37, RB at 17.

118. Hunter contradicts Enforcement Staff’s argument that Hunter was motivated by profit and was playing a game with the markets. Hunter IB at 38, RB at 19. The evidence shows that Hunter’s book was in a position to profit only a fraction of what the Commission indicated in the OSC. Hunter IB at 39. Hunter contends that he would not have risked his excellent reputation in the natural gas trading industry with a game that promised virtually no financial benefit. *Id.*

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<sup>61</sup> Rufa was a phone clerk for ALX Energy, Inc. (ALX). Tr. at 416, 2020. Amaranth and Hunter were Rufa’s largest clients. *Id.* at 2059, 952.

<sup>62</sup> DeLucia was a broker for ALX. *Id.* at 2107-08.

## February

119. Hunter also addresses his trading strategies on each at-issue month. Regarding February 24, 2006, Hunter explains that there was an unusually large contraction of the March/April spread in the penultimate two-minute options settlement period. *Id.* at 41. He thought, based on the penultimate day events, that there would be aggressive buying of futures in the close the next day. *Id.*, RB at 6. He developed an experiment to see if he could sell futures ratably over the thirty-minute settlement period on the expiry day with an average selling price that exceeded the final settlement price. Hunter IB at 41. Hunter thought that he could beat the settlement price because buying pressure would create upward pricing pressure in the bid/offer spread, and allow the broker to sell futures at an average price that was several cents higher than the NYMEX settlement price. Hunter IB at 41, RB at 7. Hunter also believed that if he traded in large volume, traders would buy from his broker instead of from locals. Hunter RB at 9.

120. According to Hunter, the attempt to beat the settlement price was not unusual. *Id.* Rufa and DeLucia testified, and Dr. Kaminski conceded, that trading over the close to beat settlement price is a common strategy that traders apply in almost every expiry period. *Id.* DeLucia said that he has beaten the settlement price and that a seller needs buying pressure to do so. *Id.* Enforcement Staff claims that Hunter could not profit from his strategy to beat the settlement price because he had purchased the EFS at a premium. Enforcement Staff IB at 31. Hunter asserts that his goal in conducting the experiment on February 24, 2006 was not to make much money, but to learn how to beat the settlement, and predict buying or selling pressure. Hunter IB at 41-42, RB at 8.

121. Furthermore, Hunter argues that he did not attempt to flood the market. Hunter IB at 44-45, RB at 4. When he told Donohoe to “make sure we have lots of futs to sell MOC” on February 24, 2006, he was directing Donohoe to sell the futures “MoC,” or ratably, over the thirty-minute close. Hunter IB at 43-44. The trade tickets corroborate that the futures were sold in approximately equal amounts evenly spread over the expiry. *Id.* Hunter argues that he gave instructions to sell ratably, and that the brokers would therefore attempt to get the best prices throughout the thirty-minute close. Hunter RB at 9-10. It is the broker’s duty to get the best prices in the pit, and he did not have any input regarding the trades beyond placing the order. Hunter IB at 45, RB at 5, 9.

122. There is no evidence indicating that he told the pit traders to attract attention, trade in large lots, trade below prevailing prices, or otherwise tried to create a herding effect in the pit. Hunter IB at 45, RB at 17. Enforcement Staff claimed that Bolling’s testimony supported the theory that Hunter tried to create a herding effect. Hunter IB at 45. However, Bolling had limited and inaccurate

recollection of the events on that settlement. *Id.* at 46. Furthermore, Bolling testified that there was nothing unusual or wrong if a pit's attention is on a person, and added that the pit's attention is always focused on someone. *Id.* at 47. Bolling also said that he did not know, and would have no way to know, who was trading for Amaranth in the pit. *Id.* at 49.

123. The contemporaneous instant messages, interpreted within the proper context, indicate that Hunter did not intend to manipulate the March futures contract prices. *Id.* at 40, RB at 3. For example, in an instant message on February 23, 2006, Hunter told Donohoe "end of day tomorrow still stands." Hunter IB at 43; Ex. S-42. Hunter explains that he was indicating to Donohoe what he wanted his "long dated" positions to be the next day. Hunter IB at 43.

124. The statement in an instant message that he "just need[ed] H get smashed on settle, then day is done" was referring to March and summer prices in the context of a strong winter position, and how a lower March price would help his overall portfolio. *Id.* at 49. March futures contract prices were insignificant to him beyond their offsetting position within the context of his overall portfolio. Hunter RB at 6-7. Falling summer prices were only good for his portfolio if winter prices fell less than summer prices. Hunter IB at 50. In the instant message referring to an experiment, he was telling Glover that he was selling futures in the close for a legitimate business reason, based on his observations of the market the previous day. *Id.*

125. The words "flexing" and "nice" in an instant message between Donohoe and him exchanged later on February 24, 2006 referred to the price curve that Hunter sent to Donohoe. *Id.* at 51. Donohoe put the price curve that Hunter sent him into a spreadsheet that provided an estimated profit and loss for the entire portfolio. *Id.* Donohoe and Hunter then celebrated the portfolio's success. *Id.* Amaranth did well in February because summer prices dropped and winter prices rose, and that the movement of his entire portfolio benefited his spread position. *Id.*

### **March**

126. Next, Hunter asserts that there is no evidence that he traded futures in March for the April expiry. *Id.*, RB at 10. In particular, he was not involved in the decision to sell approximately 1,000 futures in the April expiry. Hunter IB at 52. Hunter left Calgary for his trip to the Maldives on March 25, 2006, and returned on April 9, 2006. *Id.* He had no blackberry access, sporadic cell phone service, and could not access his e-mail account. *Id.*

127. According to Hunter, when he was on vacation, Donohoe had discretion to execute trades to manage the book's expiring futures and options positions. *Id.*, RB at 10. Donohoe implemented Hunter's broad strategy at every expiry, and had discretion over the execution of trades. Hunter IB at 53. Hunter's only communication with Donohoe while he was on vacation was an e-mail on March 28, 2006, regarding Arora's resignation from Amaranth. *Id.*

### April

128. Hunter then addresses the expiry on April 26, 2006. First, Hunter asserts that he had a legitimate business purpose for the trades executed that day - to reduce the size of his book. *Id.* at 54. Chasman, the risk manager for Amaranth Advisor's energy group, decided to implement a 20 to 30 percent proportional reduction of the book, and part of this plan occurred in the April expiry. *Id.* Risk management discussed reducing the natural gas position in late April. *Id.* In an e-mail on April 21, 2006, Chasman ordered Donohoe to "sit down with Hunter and give me the trades that you're going to do to reduce your book by 25%." *Id.* Later that day, Hunter told Manos Vourkoutiotis, a member of Amaranth's executive committee, that he was going to reduce his book. *Id.* at 55.

129. Hunter explains that he had to reduce his book in a balanced manner to minimize risk exposure. *Id.* at 54. In particular, Hunter planned to proportionately reduce the summer/winter spread. *Id.* Hunter explains that there were three ways to reduce the spread in a balanced manner: sell the spread directly to one counterparty, sell the legs of the spread separately, or expire one leg and sell the other leg of the spread, while holding futures to sell or roll. *Id.*

130. The first option was simple and fast, because it could be executed in one transaction. *Id.* However, if the spread was sold directly in large volume, the market might notice and prices could move. *Id.* Hunter alleges that he attempted the first method, which did not involve selling futures in the close, but it did not work. *Id.*

131. Under the second option, selling the legs of the spread separately, the market would not understand as easily that a large volume was being transacted. *Id.* However, there would be greater risk exposure because prices could move between sales. *Id.*

132. Consequently, Amaranth implemented the third option. Under this option, the market is not aware of the large volume being transacted, and risk is halved because one leg of the spread is expired rather than sold. *Id.* at 56. Also, under option three, a trader knows that the price for the expiring leg would be the settlement price. *Id.*

133. In implementing the third option, Hunter explains, he wanted to reduce the summer/winter spread by between 10,000 and 15,000 positions. *Id.* at 57. Hunter contends that his plan was to expire between 10,000 and 15,000 May positions and sell between 10,000 and 15,000 winter positions. *Id.* However, Hunter did not have enough May swaps in his book on April 26, 2006 to follow this strategy. *Id.* To acquire May swaps, Hunter executed a May/June spread with Centaurus. *Id.* Hunter states that he bought June swaps from Centaurus, getting longer in June, and sold May swaps to them, getting shorter in May. *Id.*

134. The next part of Hunter's risk reduction strategy was to sell winter. *Id.* When Chasman asked Hunter how he was going to sell the winter leg, Hunter responded "sell Cal 7 and 8 and H/J." *Id.* These trades were a proxy for winter contracts. *Id.* at 57. Amaranth sold calendar year 2007/2008 strip contracts in order to balance out the longer April position that the March/April trade created. *Id.*

135. Hunter contends that he thought he would have been able to sell 15,000 winter contracts that day, though he could not have predicted this with certainty. *Id.* Hunter wanted to sell as much winter length as possible to reduce his book. *Id.* at 58. Yet, if he sold more than 15,000 winter contracts, the book would be unbalanced. *Id.* To prevent this problem, he would have rolled the May futures into June instead of selling them. *Id.* The longer June position would offset any extra winters he sold. *Id.* Alternatively, if he could not sell winter length, he would sell the May futures instead of rolling them into June. Hunter also bought additional June puts in case the market fell and he was not able to sell sufficient winter length and needed to shorten his book. *Id.* By buying June puts, he could recover some of the losses he would incur with an exposed long position in case market prices fell. *Id.*

136. According to Hunter, Amaranth sold the May futures primarily in the last eight minutes of the expiry on April 26, 2006 because he was unable to sell sufficient winter length during the day. *Id.* at 59. Enforcement Staff argues that Hunter timed the sales in the last eight minutes to depress market price. Hunter responds that, assuming that a trader could manipulate settlement price, trading in the last eight minutes would not be an effective way to move the settlement price because the expiry would be 22 minutes old and therefore not sufficiently impacted by trading. *Id.*

137. Amaranth tried to sell winter length since 12:30 p.m. on the expiry day, but was unable to sell sufficient winter length by the middle of the settlement period. *Id.* at 60, RB at 14. Therefore, he sold the May futures towards the end of the close instead of rolling them into June. Hunter IB at 60. Hunter points out that he found liquidity in the close, was able to sell winter length, and attempted to get the



best prices. *Id.* at 60-61, RB at 13. Hunter notes as an example that at 2:06 p.m. that day, he said in an instant message that they were “finally selling h/j’s etc . . . /cals.” Hunter IB at 60.

138. Hunter emphasizes that he did not time the volume of sales in the last eight minutes to impact June settlement prices, which are based on trades in the last two minutes of the expiry. *Id.* He would have lost money on the trade he executed with Centaurus if the June contract settlement price fell more than the May contract. *Id.* In the trade with Centaurus, he had moved a 10,000 short swap position from June to May, in order to expire them. *Id.* Amaranth lost millions of dollars because the June settlement price dropped further than the May settlement price. *Id.*

139. As a result, because of his trade with Centaurus, he wanted the prices to rise, not fall, over the settlement period on April 26, 2006. Hunter IB at 62-64. Due to the Centaurus trade, Hunter had a longer June position and a longer overall position, and would have benefited if the settlement prices had risen. *Id.* at 63-64. At 1:23 p.m., Hunter told Bart Glover that he was “worried about a lower close.” *Id.* at 62. Hunter asserts that Enforcement Staff has not adequately explained why Hunter would have been worried about a lower close if he wanted prices to drop. Hunter RB at 11. Additionally, at 2:34 p.m., Hunter told Chasman “we got smashed o[n] the stuff we rolled off,” referring to the short swaps that Hunter had moved from June to May in the trade with Centaurus. Hunter IB at 63.

140. Hunter maintains that Enforcement Staff offers no convincing explanation regarding why he would have executed the May/June spread trade with Centaurus. Hunter RB at 11-12. If Hunter had not done the Centaurus trade, he would have been shorter in June and longer in May, and would have profited from the June settlement prices, which closed disproportionately lower than May. *Id.* at 12.

141. Due to the fact that settlement prices, particularly the June contract price, fell over the close, Amaranth lost \$17 million on the trade with Centaurus and \$20 million on Hunter’s portfolio. Hunter IB at 63. Two days after the expiry, Chasman commented that Hunter’s book lost \$40 to \$50 million. *Id.* Hunter responded that that the reduction was not his idea, and “if we hadn’t expired anything off we’d have made a mountain of money.” *Id.* Hunter claims that Enforcement Staff has not explained why he would have been angry about having to expire May swaps if he had purposefully sold the swaps to reduce price. Hunter RB at 11.

142. Hunter contends that the relevant issue regarding the April 26, 2006 trading day is whether he sold futures in the expiry for the legitimate business reason of

reducing his book. Hunter IB at 61.<sup>63</sup> Hunter argues that it is irrelevant whether he could have reduced his book in a different manner or whether his strategy was successful, because he had a legitimate business purpose for his actions. *Id.* at 60-61, RB at 12-14.

### Discussion

143. It is found that Hunter intentionally manipulated the settlement price of the at-issue natural gas futures contracts. His trading was specifically designed to lower the NYMEX price in order to benefit his swap positions on other exchanges.<sup>64</sup> Additionally, it is found that Hunter knew that his NYMEX-equivalent positions on other exchanges would benefit from a lower NYMEX settlement price. Tr. at 405. As a result, it is found that Hunter acted with the requisite scienter to meet the second rule requirement.

144. Contrary to Hunter's arguments, the evidence in this case conclusively shows that Hunter knew the natural gas futures market could be manipulated. Hunter believed that certain natural gas traders had the ability to move markets by "jack[ing] the settle." Ex. S-19; Tr. at 400-01. Hunter admits that he believed that a two-minute settlement could be manipulated. Tr. at 568. At the hearing, Hunter stated that he observed price movements in the thirty-minute settlement for the September 2006 contract which did not reflect supply and demand. Tr. at 888-89; Exs. S-166, S-269. Amaranth sent a letter to NYMEX to complain about this. Ex. S-166. Hunter now argues this was in the unregulated markets and thus not persuasive. However, as discussed below, the prices of both markets are interrelated. Accordingly, Hunter's disclaimers are not credited.

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<sup>63</sup> Citing *In Re Winship*, 397 U.S. 358, 370-372 (1970); Hunter RB at 14, citing *In re DiPlacido*, 2008 CFTC LEXIS at 10 and *Radley*, 2009 WL 3013457 at 9.

<sup>64</sup> The Senate found that the prevailing price levels, especially the extraordinary price spreads that took place in the spring of 2006, did not result from the interaction of many buyers and sellers or reflect the "consensus" market view of the fundamentals of supply and demand. Staff Report, *Excessive Speculation in the Natural Gas Market* (2007) *supra* note 37, at 75. Instead, the market largely reflected the actions of a single trader whose steady buying and accumulation of very large positions exerted a continuing upward push on prices over this period. *Id.* The evidence in this case supports the finding that Amaranth's extraordinary selling during the at-issue settlement periods exerted downward pressure on the market and created prices that were not the result of normal supply and demand.

145. Additionally, Hunter referred to a trader from another firm, John Arnold of Centaurus, as the “master of moving the close.” Ex. S-18; Tr. at 399. Hunter also agreed that market participants buying or selling significant volume during short periods may impact prices. Tr. at 403.<sup>65</sup> Hunter was generally familiar with the trading pit at NYMEX. *Id.* at 304-07.<sup>66</sup> Further, Hunter indicated he would have informed Rufa, the phone clerk for Amaranth’s principal floor broker, of his intention to sell futures in the close. Tr. at 415-17; Ex. S-46. Thus, it is clear from the record that Hunter anticipated a reaction from the pit by virtue of his high volume selling during the close.

### **February 24 settlement (March futures expiry)**

146. The record shows that Hunter devised an experiment. Ex. S-47. In an instant message dated February 23, Hunter stated: “ok- end of day tomorrow still stands.” Ex. S-39. Hunter provided further instructions to ensure that his execution trader would have “lots of futures to sell MoC [Market on Close]

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<sup>65</sup> Other testimony in this proceeding corroborates this point. For instance, another witness testified that a large seller can move the price down, and a large buyer can move the price up. Tr. at 2128. In this regard Rufa’s testimony that a trader would never expect to move the market with large buy or sell orders is not credible. *Id.* at 208. A “local” trader who traded on his own account described the pit as an intense environment. *Id.* at 1061-63. This witness testified that traders in the pit pay close attention to each other’s faces and eyes, while paying attention to volume and transactions taking place. *Id.* at 1078-81. Additionally, this same witness testified that a broker who is aggressively “hitting bids” is signaling the pit that he has a high volume of contracts to sell. *Id.* at 1096-98. Other market participants may react by selling more to push the price further down and then take advantage by buying at the lower price, or “feeding on the fallen corpse.” *Id.* at 1106-09.

<sup>66</sup> There is an inherent balance between buyers and sellers in the natural gas futures market. Staff Report, *Excessive Speculation in the Natural Gas Market* (2007) *supra* note 37, at 73. Generally, producers of natural gas use the futures market to hedge their future sales and are generally sellers of futures contracts. *Id.* As a result, in the futures market there are more “natural” sellers than buyers. *Id.* The interaction between buyers and sellers through bids and offers immediately determines the price of the futures. If a trader with a large share of long open interest suddenly decides to sell its contracts, it likely will push down the price of the contract. However, if a trader with a large share of open interest decides to hold onto those contracts and wait for a higher price before selling, the price will move down more slowly, if at all, because there will be much less selling pressure. *Id.* The report goes on to state that Amaranth was the predominant cause of the widening difference between the price of the summer and winter contracts because of its dominant position in the market and because of its large buys of winter contracts and large sales of summer contracts. *Id.* at 68.

tomorrow.” Ex. S-42. Another instant message dated February 24 indicates Hunter wanted the March futures to get “smashed” (fall really fast) in the settlement period. Ex. S-45; Tr. at 281-82. He told others he needed the March futures contracts to go lower. Ex. S-45; Tr. at 278-82, 947-48.

147. Hunter also understood that the value of his NYMEX-equivalent swaps would be enhanced by a lower natural gas futures contract settlement price. Tr. at 405. Hunter knew that Amaranth had approximately a 13,000 lot short position in March NYMEX-equivalent swaps going into the day. *Id.* at 406. The record conclusively shows that Hunter had access to “Daily Energy Risk Reports” prepared nearly every business day and which showed his delta-adjusted positions for each month’s contracts (for five or six years into the future). *Id.* at 406-07; Ex. S-203. The risk reports show all or almost all energy portfolios at Amaranth. Tr. at 417-18. Going into February 24 the risk report shows a short position of more than 12,000 March NYMEX-equivalent swaps and futures on a delta-adjusted basis in the “energy 2 book” with a value of more than \$800 million. *Id.* at 413.<sup>67</sup> Hunter was also aware of the impropriety of manipulating the settlement price. *Id.* at 449-50.

148. Record evidence shows that Hunter was instructed to flatten his (1,729 short) futures position by the end of February 24. Ex. S-31. However, at the end of February 23, Hunter was already telling Donohoe to make sure we have lots of futures to sell “MOC tomorrow.”<sup>68</sup> Ex. S-42. Instant messages show that, at noon on February 24, Donohoe<sup>69</sup> reported he had acquired a 3,111 long futures position as per Hunter’s instructions the previous day. Hunter replied “cool” and then “that should be enough” and they agreed that no more futures would be bought. Ex. S-46; Tr. at 414-16. Hunter then texted “telling Vinnie.” Ex. S-46; Tr. at 416.

149. In another instant message on or about 1:00 p.m. on February 24 Hunter told Bart Glover:<sup>70</sup> “We have 4000 to sell MoC” followed with “Shhh.” Ex. S-47.

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<sup>67</sup> This book held trades and positions which Hunter managed or co-managed. Tr. at 328-29.

<sup>68</sup> Hunter and Rufa testified that “MoC” meant to sell ratably during the close. Tr. at 658-59, 2030-32. This testimony is not credible, since no evidence supports this testimony. The definition of “MoC” does not support this contention. NYMEX rules state that “MoC” means to sell during the closing range. Ex. S-163. Moreover, Donohoe testified that the orders would be executed by Amaranth’s brokers at their discretion to get the best price, not “ratably.” Tr. at 966.

<sup>69</sup> Donohoe was Hunter’s execution trader. Ex. S-65.

<sup>70</sup> Bart Glover was a trader in another firm. Hunter testified that he occasionally

Glover replies “come on.” Hunter replies “y.” Glover then replies “unless you are huge bearish position, why the f would you do that.” *Id.* According to Hunter, Glover was intimating that if a participant was bearish (short, as was Amaranth) then it would benefit from selling 4,000 futures at the close, due to the fact that the short position would benefit from the falling prices. Ex. S-47; Tr. at 425. This is when Hunter states “bit of an expiriment [sic] mainly.” *Id.* On or about 2:15 p.m. (with 15 minutes left in the settlement period) Hunter, in another IM, says “nice.” This is followed by “Today came together quite nicely.” Ex. S-55; Tr. at 432-33. At 2:30 p.m. Hunter sent a “curve” or a prediction of where prices would settle, starting with March at \$7.15 and asked Donohoe, “what do you think?” “of this curve?” Ex. S-55. Donohoe stated “h will” settle “lower” and “h/j wider.”<sup>71</sup> *Id.* Donohoe then said “nice” and that this was the “2nd best... sept/oct last year still the best.”<sup>72</sup> *Id.*

150. Amaranth energy traders were advised to trade out of the prompt-month contract and not wait for the settlement day for several reasons, including the delivery risk if prompt-month futures position were not flattened at the end of the settlement period, the lower liquidity from having less open interest as expiration draws closer, and Amaranth’s overall investment strategy to focus on long term assessment of risk and value. Ex. S-2 at 6.<sup>73</sup> It is significant that the three at-issue days clearly differed from Amaranth’s previous trading. The record in this case establishes that the large volume trading during the final settlement period (the last thirty minutes) had never been done by Amaranth before. Prior to February 24, Amaranth had not sold more than 50 natural gas futures contracts in any settlement period. Ex. S-1 at 57-58. Record evidence establishes Amaranth sold close to 3,000 March 2006 contracts in the February settlement period; over 1,000 April contracts in the March settlement period; and close to 2,600 May contracts

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shared information with this trader. Tr. at 424.

<sup>71</sup> H/J is the March/April spread. Tr. at 435. March is the last month of the winter heating season (gas supplies are low but gas is still being withdrawn from storage). April is the first month of summer (gas storage facilities begin to be refilled). The price difference between March/April contracts is one of the most volatile natural gas price spreads. Staff Report, *Excessive Speculation in the Natural Gas Market* (2007) *supra* note 37, at 80.

<sup>72</sup> Sept/Oct 2005 were very profitable for Amaranth as a result of increase in gas prices after hurricanes Rita and Katrina. Tr. at 436.

<sup>73</sup> Another trader testified that there was increased price volatility during the close. *Id.* at 2143-44.

in the April 2006 settlement period. Ex. S-15 at AMARANTH\_REG091684\_POS0102.XLS; Ex. S1 at 99-100, 109-10, 113-14.

151. Amaranth's sales during two of the at-issue months (February for the March contract and April for the May contract), when compared with the sales of prompt-month futures contracts made by all sellers, were three times larger than the net contracts sold by any other single seller in any previous settlement period. Ex. S-11 at 41-44.<sup>74</sup> No trader had sold more than 1,000 prompt-month futures contracts during the settlement periods from June 28, 2004 through February 24, 2006. *Id.*<sup>75</sup>

152. Moreover, it is indisputable that Hunter had a profit motive. Amaranth made significant profits from its holdings of NYMEX-equivalent swaps on ICE, OTC and Clearport that benefited from a lower natural gas futures settlement price. Amaranth's P&L statement for February 24 shows the natural gas positions "gained + 198mm on short Mar-Jul 06 positions as prices decreased by an average of \$0.05, and long Winter 06 & 07 positions as prices increased by an average \$0.21 and \$0.31, respectively." Ex. S-48; Tr. at 437-39. This document shows \$45 million in profit on that day, including substantial gains in individual strategies within the book "Skew2" and "Straddle Roll2" (trade data shows that the March swap positions that benefited from a lower March settlement contract were assigned to these strategies). Ex. S-1-5 at REG091743\_pos0324.xls. Additionally, this document shows that Hunter's book was up \$163 million that week.

153. Hunter has offered an explanation for his trading for the February expiry (March 2006 natural gas contract). According to Hunter, the March-April spread contracted dramatically (and reversed after the close) on the penultimate trading day. Tr. at 455-57. Hunter hoped to exploit an expected repeat of the strong March contract buying by having a supply of futures to sell ratably during the close. *Id.* Additionally, he hoped to displace some of the locals, capturing their

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<sup>74</sup> Amaranth was granted an exemption on September 16, 2005, to exceed NYMEX 1,000 contract position limit under NYMEX Rule 9A.26. Ex. S-14; S-1 at 29.

<sup>75</sup> Hunter argues that other high volume traders were not charged with manipulation. This argument is irrelevant for purposes of this decision. The Commission set this case for hearing and that is the issue in this case. Moreover, it appears from the evidence that no one else was in a position to profit from moving the price, because no other company had such big ICE, Clearport, and OTC positions relative to and opposite to their NYMEX positions (*i.e.*, short swaps and long futures or *vice versa*, with a swap position much larger in magnitude than their futures position). Exs. RES-2-13, 2-14, 2-15; *see also*, P 72, *supra*.

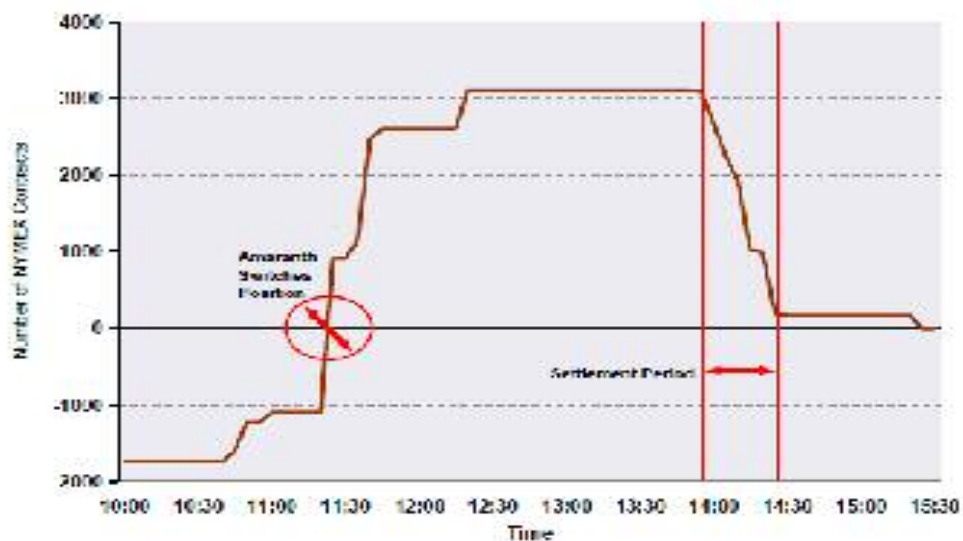
commission, by being a reliable seller throughout the settlement period. *Id.* at 724. Staff and Hunter agree that there was an unusual rally in March prices on February 23, 2006.

154. However, it is not clear why the ability to sell futures ratably during the close for approximately the settlement price would be something that required an experiment. Rufa testified that selling ratably over the close is something that's frequently done to attempt to get the best price. *Id.* at 2063-64.

155. Amaranth's trading of March 2006 natural gas futures during the settlement day is shown in Dr. Kaminski's Figures III and IV. Ex. S-1 at 99-100. Figure III shows Amaranth's March 2006 natural gas futures position throughout the settlement day. Figure IV shows the number of futures Amaranth traded in each minute of the settlement day. As illustrated in Figure III, Amaranth changed its March 2006 natural gas futures positions substantially throughout February 24<sup>th</sup>, going from 1,729 NYMEX futures short to 3,111 NYMEX futures long by the time the settlement period began. Hunter felt this was a reasonable amount with which to conduct his experiment. Ex. S-46; Tr. at 414-16. Amaranth obtained its long March futures position by purchasing about 1,800 March futures while selling the same number of April futures (a March/April spread) and obtained approximately 3,000 additional March futures through EFS purchase transactions (which, since Amaranth also acquired 3,000 short March 2006 NYMEX-equivalent swaps in the EFS, did not impact Amaranth's net position). Tr. at 683-84, 686.

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Figure III: Amaranth March 2006 Termination Day February 24, 2006:  
Intraday NYMEX Natural Gas Position



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5  
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Source: NYMEX 00003 (NYMEX NG Futures Contract trade data) (contained in Exhibit S1-5).

156. Hunter argued that his goal was to “beat the close” by as much as possible. Tr. at 468. However, this is relevant only for the 3,000 EFSs, because only those have profit measured by the difference between the weighted-average sale price of the long futures and the VWAP of the short swaps Hunter acquired through his EFS transactions on settlement day. The 1,800 long March - short April spreads increase in value if the March price increases relative to the April price. Thus, the only way Hunter could have profited from his EFS (even before considering the cost of obtaining the EFS) was to sell the futures for a higher price, on average, than the VWAP. This requires timing the sales so that they tend to occur when the price is above the VWAP, that is, when futures prices are relatively high (which would not be known until near the end of the settlement period).

157. However, Hunter testified that he ordered his futures to be sold market on close, in roughly equal amounts during the thirty-minute settlement period.<sup>76</sup>

Q And “MoC,” you said, stands for market on close?

A Yes.

Q You testified about this, but just to be clear, your understanding of telling someone to sell futures in a thirty-minute settlement period market on close, to you, that meant what?

A That meant roughly ratably over the close,

Q What does “ratably over the close” mean?

A That means you sell – it has to be just roughly the same amount over a given time period. So the example I used earlier with the Judge was 100 lots every minute, but really, the ratably – the rateable number is at the discretion of the floor trader. And I think to be fair, if I said MoC, I think Vinnie Rufa would also know that that’s – I think if he was here and you asked him, he would say yeah, I think MoC means sell it ratably over the close.

(Tr. at 745-46.)

158. The settlement price, the VWAP, is the volume-weighted average price of futures transactions during the settlement period. *Id.* at 302-04. A seller selling futures ratably during the settlement period (for example, approximately 1/30<sup>th</sup> of his futures in each minute or 1/6<sup>th</sup> in each 5-minute period) would presumably be

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<sup>76</sup> The following testimony refers to selling ratably: Tr. 396-98, 424, 659, 678, 715, 720-21.



able to approximate the settlement price, but would not expect to beat the close by a substantial amount.<sup>77</sup> Selling ratably does not allow Hunter to statistically beat the close, since ratable sales yields a random sample of prices in the settlement period, a fact that even Hunter's own attorney admitted:

“Because the strategy required Amaranth to be selling at the same time as the aggressive buying, and because Hunter had no way of knowing exactly when within the closing range that aggressive buying would occur, Hunter designed the sales to be generally ratable over the closing range. Otherwise, if Amaranth were to have sold over only a portion of the closing range, it would risk obtaining an average sales price that was significantly less than the volume-weighted average price over the entire close.”<sup>78</sup>

159. Another motivation discussed by Hunter may have yielded the possibility of beating the VWAP. By being a trader known to have futures for sale, Hunter (or more correctly, Hunter's broker) may be able to have his offers lifted rather than his bids hit.<sup>79</sup> However, given that the typical bid-ask spread is 3 cents, this would yield about 1.5 cents more than the VWAP if all of Amaranth's shares traded at the ask rather than at the bid.<sup>80</sup> However, Bolling testified that Jim X,

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<sup>77</sup> If total sales during the settlement period are also uniform (if approximately 1/30<sup>th</sup> of the total volume traded during the settlement period trades in each minute), the VWAP is equal to the average price, so a seller selling ratably would basically replicate the VWAP.

<sup>78</sup> Answer of Hunter in Opposition to Order to Show Cause, *supra* note 33, at 22.

<sup>79</sup> Hunter testified he wanted to beat the locals with volume and because they would have to come to trade with Amaranth (if they needed to buy they have to come to Amaranth at the offer). Tr. at 730-32.

<sup>80</sup> This would be having their offers lifted rather than having to hit bids. Note, however, that as Amaranth's share of the total sales increases, it becomes harder to beat the VWAP this way, since each sale impacts the VWAP as well. If Amaranth is 20 percent of the volume, for example, and they are always able to trade at 1.5 cents above the prevailing price by having their offers lifted, they will increase the VWAP by 0.3 cents (20 percent of 1.5 cents) and will only beat the VWAP by 1.2 cents.

ALX's floor trader, appeared to have large quantities and was hitting bids consistently.<sup>81</sup> *Id.* at 1103-05, 1110-11.

160. Several anomalies make Hunter's explanation of his trading during the March 2006 natural gas contract settlement period (to profit from repeated strong March 2006 buying) problematic. First, Hunter sent a text on settlement day stating: "just need H (March 2006) to get smashed on settle." Ex. S-45. This would not likely hurt the 4,800 March 2006 futures Hunter acquired, since the spreads would largely insulate him from an absolute price decrease (see discussion *supra* P 159). However, Hunter also held a substantial short March 2006 swap position – 9,657 short March 2006 ICE swaps and 4,348 short March 2006 Clearport swaps - that would clearly benefit from a price decrease. Ex. S-1 at 97. Hunter does not offer an explanation of the NYMEX-equivalent swaps. Yet clearly his calculus would have included those swap positions, since his March 2006 strategy clearly impacts them. That he would be silent on something that is so significant seems odd, especially since the Order to Show Cause focused on these elements. Indeed, if Hunter felt there would be strong buying pressure during the settlement period, it is curious that he continued to hold such a large net short position into the settlement period.

161. Second, Hunter's attempt to beat the close by selling ratably seems unlikely to succeed, especially since the instruction to sell ratably precludes information gathering or feedback. That is, selling ratably yields roughly an unweighted-average of the prices observed over the close, and there is no statistical reason to expect this to consistently exceed the weighted-average price (the VWAP). Third, the bets that he claimed he took to benefit from strong repeat March 2006 buying seem poorly designed to profit from such a recurrence. The first bet—approximately 3,000 EFSs, the short March 2006 swaps/long March 2006 futures—is largely insulated from absolute price movements of the March 2006 natural gas contract. The second bet – 1,800 March 2006 (long) - April 2006 (short) spreads – is a bet that the price of the March 2006 natural gas contract will increase relative to that of the April 2006 natural gas contract. Only the smaller second bet seems consistent with his expectation that the event on the 23<sup>rd</sup> would repeat.

162. However, both bets are also insulated from falling March 2006 prices, and so not inconsistent with Enforcement Staff's averments. The value of the EFSs depends on how March 2006 futures sales performs relative to March 2006 swaps (both move together until close to the settlement period and, as discussed, the

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<sup>81</sup> Bolling was a local, trading on his own account. He described himself as a market maker, "if there are buyers looking for sellers, you sell. If there are sellers looking for buyers, you buy." Tr. at 1050.

weighted average sales price of the March 2006 futures is unlikely to exceed the VWAP, though an order sold ratably throughout the settlement period should come close to the VWAP). The value of the March 2006-April 2006 spread position is protected (albeit not perfectly) because, if the price of the March 2006 contract falls (and what he owns decreases in value), the April 2006 price is also likely to fall (thus increasing the value of his short April position). *See, e.g.*, Dr. King's Figure II (Ex. S-11 at 27), demonstrating how highly correlated these prices are.

163. The bets that he claimed he took to benefit from a strong repeat March 2006 buying thus seem poorly designed to profit from such a recurrence. Hunter continued to hold a large short swap position throughout the settlement period that would be harmed by price increases due to strong buying pressure while the EFSs and March 2006-April 2006 spread positions prevent him from benefitting substantially from price increases (just as they protect Hunter from absolute price decreases). Hence, the argument that he was going to benefit from repeated strong March 2006 buying is not credible.

164. Fourth, the distinction between paper and realized profits sheds light on Hunter's explanation. He may argue that driving down the price of the March 2006 natural gas contracts would hurt his short summer-long winter spread. But, as he often said, the whole curve tends to move together, and so if March 2006 natural gas contract fell, his summer gains would offset his winter losses. The offsetting gains and losses, however, are not symmetric. The gain on driving down the March 2006 natural gas contract is realized (since the swaps expire that day), whereas the losses on the long winter positions would be on paper. After the manipulation ends, the market would recover, and the paper losses would turn into paper gains.<sup>82</sup> Hence, it appears that Amaranth gained after the manipulation.

165. Hunter's explanation for the February expiry, that he wanted to beat the close, contradicts his defense that he only focused on his overall book and was never concerned with one-day price movements and trading in the front month contract. Tr. at 595-97. Hunter claims he does not recall a lot of the events that

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<sup>82</sup> This does not mean that the market goes up by the same amount as the manipulation pushed the market down – rather that the change in the market price the following business days would be whatever the market would have done absent the manipulation plus the amount of the manipulation. For example, if manipulation caused the market to close 5 cents lower on February 24, 2006, and the market would have closed 2 cents lower the following business day, then the market would close 3 cents higher that day- the 2 cents drop plus the 5 cent recovery from manipulation. *See*, note 54, *supra*.

are at-issue in this case and his only recollection comes from reviewing documents. *Id.* at 897-900. This testimony is not credible. Hunter exhibited significant selective memory in this case, which is inconsistent with his intelligence, experience and knowledge. Hunter could not satisfactorily explain why a two-minute settlement period for options would be replicated the next day for a thirty-minute close for futures. *Id.* at 456-59. Further, Hunter could not explain why the behavior of participants the previous day (trading to “squeeze the spread”) would be replicated the next day during the settlement period. *Id.* at 457-59. Hunter’s suggestion that market participants on February 23 were left holding futures is not conclusive since there is no evidence indicating that these market participants would have to wait until the settlement period to flatten out of their futures positions, rather than doing so earlier in the day. The most salient point is that Amaranth traded similarly during the next settlement period (March 2006 for the April contract) but there is no evidence to indicate that there was a similar rally on the penultimate day to justify another experiment.

166. Moreover, contemporaneous instant messages show his real mindset and thus are deemed admissions against interest. Hunter expected the market to go down from selling pressure. An instant message dated February 24 on or about 11:00 a.m. indicates he expected “H [March] will go off soft.” Ex. S-43; Tr. at 465-66. He saw “futures sellers everywhere.” Ex. S-43; Tr. at 465-66. In another instant message on February 24 on or about 1:30 p.m., Hunter conveys the thought that John Arnold (of Centaurus) and Sempra will be sellers, too. Ex. S-47. Additionally, in another instant message the same day on or about 11 a.m., Donohue asked Hunter if Centaurus was positioning for a “punch down” or “protecting up” and Hunter replied “punch down.” Hunter in the same message states “they want it down Friday.” Ex. S-54; Tr. at 463-65. It is curious that, given Hunter thought the behavior of February 23 would repeat on February 24, he did not try to reduce or eliminate his short March swap position sooner rather than wait until they expired.

167. The record demonstrates other contradictions in Hunter’s conduct and his explanations. Consequently, the only conclusion to be reached is that his explanations are *ex post facto* and solely intended to obfuscate the truth. For instance, Hunter claims that 3,000 futures would not have an impact on the market at the close because this is not a lot of volume. *Id.* at 746-47. However, his experiment required that he “have a large enough number of lots to be meaningful to the settlement average” (*Id.* at 724) and that the pit understand he had a lot of volume to sell, in order to have buyers come to him. *Id.* at 724, 730-31. He communicated to a trader of a competing company that he had a lot of volume to sell. *Id.* at 708-10. He was signaling others he had a lot of volume to sell.

168. Hunter claims he could not have known on February 23 that a decline in March settlement prices would benefit his book because he could not know what would happen to other prices out the curve, for instance, the winter contracts. *Id.* at 691, 694. However, the evidence demonstrates that Hunter could run stress scenarios and make predictions of likely outcomes. Ex. RES-4-1 at 17-18. He could make an informed judgment as to what would happen to the summer prices.

169. Moreover, one could argue that if Hunter really expected buying pressure on February 24, as happened on February 23, the way to beat the close would have been to wait to see if the buying occurred and sell when prices were higher and not sell ratably during the close. Hunter alleges that his strategy depended on his offers getting lifted (buyers in the pit would come to him and higher offers would be lifted as opposed to his broker having to hit bids in order to sell). However, nothing in this record supports this. Hunter does not recall telling his broker to have offers get lifted. Tr. at 469-70. There is also no evidence that he instructed Donohoe to have offers lifted instead of hitting bids. *Id.* at 994. This is not what happened. As stated above, what happened is that Amaranth's brokers were hitting bids repeatedly and consistently and selling below the average prices of all others in the market. *Id.* at 1103. There is no record evidence of Hunter checking during the close to see if Amaranth was having offers lifted and there is no evidence that after the close Hunter complained to his traders (ALX) or chastised them for not complying with his instructions. *Id.* at 469-70. Finally, it is not credible that an experiment was conducted and yet Hunter could not recall on the witness stand whether it was a success or not. *Id.* at 470. Hunter's execution trader did not remember anything about an experiment either. *Id.* at 994. Hunter and Donohoe are not credible.<sup>83</sup> The record evidence does show that Hunter intended to conduct an experiment to lower the price of the March futures, to benefit his short positions on other exchanges.<sup>84</sup> His assertions to the contrary are not credible.

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<sup>83</sup> Donohoe was Hunter's friend and his execution trader at Amaranth. Tr. at 330.

<sup>84</sup> Note that this pattern is consistent with findings in the Senate Report for the September prompt futures. For the September prompt-month, Amaranth stopped trading in NYMEX around 1:15 p.m. and shortly thereafter concluded its trading on ICE. Staff Report, *Excessive Speculation in the Natural Gas Market* (2007) *supra* note 37, at 107. Shortly after Amaranth exited the market the price of the September contracts began to rise and the September/October spread began to narrow. *Id.* Amaranth's selling helped keep the price of the September contract down and the spread wide. *Id.*

### March Settlement (April Futures)

170. Record evidence conclusively establishes Hunter was out of the country during this settlement period. Hunter was in the Maldives; his execution trader Donohoe was in Greenwich. Tr. at 334, 471. It is also undisputed that trading in this period exhibited similar patterns to the previous month. Through Hunter's book, Amaranth again traded a large quantity of prompt-month futures in the thirty-minute settlement period while holding large short prompt-month NYMEX-equivalent positions on other exchanges.<sup>85</sup> Hunter and Donohoe claim that there was nothing salient about this month which would help them remember what happened. Tr. at 471, 968. However, this was the second time Amaranth had traded such large positions in the final settlement period. Therefore, their testimony about their lack of recollection is not credible. There were some communications between Hunter and Donohoe, however Hunter argues this was not related to trading but to Harry Arora's (another Amaranth head energy trader) departure. *Id.* at 473, 475-77; Exs. S-33, S-51. It is noted that there was no penultimate day rally as happened in the previous settlement in February.

171. The record establishes Hunter was responsible for Amaranth's natural gas book. Tr. at 955. Hunter understood his approximate overall positions. *Id.* at 471-78. Donohoe, Hunter's execution trader, did not have authority to determine Amaranth's trading strategy. *Id.* at 957. Donohoe executed orders on behalf of Hunter. *Id.* at 911. There is no record evidence that Donohoe traded against Hunter's wishes in this month or was reprimanded or cautioned for trading outside of his authority or against Hunter's wishes. Based on the evidence in this record and considering what transpired the previous and the following month (a pattern of conduct) it is found that Hunter again lowered the price of the prompt-month future to benefit his short position in NYMEX-equivalents in the other exchanges in contravention of the Anti-Manipulation Rule.

172. The evidence demonstrates that Amaranth's behavior in the March settlement period was quite similar to that of the previous month – selling futures ratably during the close at prices generally below contemporaneous trades while holding a large short swap position that would benefit from falling prices.<sup>86</sup> Such

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<sup>85</sup> Hunter's NYMEX-equivalent swaps were many times the size of his futures positions. Ex. S-1 at 111.

<sup>86</sup> The 2006 short summer-long winter spread got much longer and the overall portfolio got somewhat longer. Hunter testified that he never wants his book to get out of balance, but he allowed this to take place while he was on vacation. This is a significant deviation from the goal of maintaining a balanced spread, and so a significant anomaly that was not explained by Hunter.

a strategy also does not require Hunter's presence, as it may be implemented with a simple instruction. Accordingly, it is found that Hunter is not credible. He has developed a story to defend his actions in this matter which is inconsistent with the record evidence. Further, it is additionally found that he intended to lower the price of the April futures to benefit his short NYMEX-equivalent positions in the other exchanges.

### **April Settlement (May Futures)**

173. The trading for the April settlement (May Futures) was different from the previous two periods, as Amaranth's sale of prompt-month futures was concentrated in the last eight minutes of the settlement period rather than the entire thirty minutes and the transactions were executed through three brokers: ALX, Gotham, and TFS, rather than solely through ALX. The record shows there were specific instructions to sell in the "last eight minutes." Tr. at 971-74; Exs. S-1 at 117, S-246, S-162 at NX\_USSEN\_01548 and NX\_USSEN\_01584. In an instant message on April 26, 2006, at 2:06:58 PM EDT, Brian Hunter stated "we are waiting to sell." Ex. S-17. Donohoe did not remember why he gave the instruction to execute the trades in the last eight minutes. Tr. at 968-69, 978-79. This testimony is not credible. This witness exhibited significant lack of candor on the witness stand, which can be attributed to the fact that, as of the time of the hearing, he was still very good friends with Hunter, and they talk nearly everyday.<sup>87</sup> *Id.* at 964:13-18.

174. It is found that this trading influenced the price of the May contract (prompt-month) and the price of the June 2006 contract (prompt-next month).<sup>88</sup> Amaranth had significant short May and June position which benefited from the lower prices.

175. Hunter maintains that the April trading was done to reduce the book. According to Hunter's testimony, this allegedly would be done by selling long winter contracts and buying or otherwise liquidating short summer positions. Tr.

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<sup>87</sup> Hunter and Donohoe are defendants in a pending civil lawsuit. *In re Amaranth Natural Gas Commodities Litigation*, No. 07-6377, 612 F. Supp. 2d 376 (S.D.N.Y. Apr. 27, 2009). Hunter is also a defendant in *CFTC v. Amaranth Advisors, L.L.C.*, No. 07 Civ. 6682 (S.D.N.Y.). Amaranth Advisors L.L.C. and Amaranth Advisors (Calgary) U.L.C. settled with the CFTC. *CFTC v. Amaranth Advisors, L.L.C.*, U.S. Dist. 101406 (S.D.N.Y. Aug. 12, 2009).

<sup>88</sup> This contract settles during the last two minutes of trading. The prices of the adjacent natural gas contracts or those contracts with close expiration dates are highly correlated. Ex. S-1 at 118-19.

at 483, 784. Hunter testified that his trading strategies on April 26<sup>th</sup> were solely to achieve his overall position reduction objective. *Id.* at 841-42. Hunter testified that he chose to reduce Amaranth's holdings by "legging out" of its spread positions. *Id.* at 783-84. This meant selling long winter contracts while allowing short May swaps to expire on April 26. *Id.* at 784. While expiring summer swaps to balance the reduced positions due to the sale of winter long positions makes sense, it also benefits from lower natural gas futures settlement prices, thus furthering the manipulation.

176. Additionally, Hunter sold May natural gas futures contracts in the settlement period. Ex. S-170. Hunter's claim that he also sold futures as part of his overall strategy is not credible. On the witness stand, Hunter would not admit that selling futures was part of a position reduction strategy. Instead he stated, "I just said I sold futures in the close. That's all I'm going to say." Tr. at 894-95. In a letter in response to a NYMEX inquiry, Amaranth explained why futures were sold in this settlement period. Ex. S-170. Hunter was involved in drafting this letter. Tr. at 479-80. Amaranth explained in the letter that the May futures contracts<sup>89</sup> would allow the trader to adjust the short summer position, depending on the number of winter contracts sold:

"These [May] contracts give you the flexibility to adjust the amount your short summer position decreases. If you sell the maximum number of winter contracts, you simply roll your long May futures forward (leaving your full financially settled swap position to expire). If you sell fewer winter contracts, you sell your May futures instead." (Ex. S-170.)

Amaranth was charged with submitting a false statement to the NYMEX by the CFTC as a result of this letter.<sup>90</sup>

177. Enforcement Staff cross examined Hunter about certain strategies Hunter had previously testified to on direct concerning the April close for the May futures. Strategy 1 was to trade a spread. Strategy 2 was to buy the short leg, and sell the long leg. Strategy 3 was to expire the short leg, and sell the long leg. Tr. at 984. Hunter states:

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<sup>89</sup> Amaranth's letter understated the short May position by 6,000 contracts. Tr. at 492-93; Ex. S-170.

<sup>90</sup> *CFTC v. Amaranth Advisors, L. L. C.*, No. 07-6682 at 2 (S.D.N.Y. July 25, 2007).



- Q Number 3, what you actually did, you sold futures in the close, right?
- A That day, I sold futures in the close.
- Q That was option 3 that you testified earlier when your lawyer was asking—
- A What I am going to say is that day, I sold futures in the close.
- Q Right.
- A That's it. That day, I sold futures in the close. I do not agree that 3 and selling futures in the close are necessarily the same thing. I just said I sold futures in the close. That is all I am going to say.
- Q What's the wrong with admitting selling futures in the close is with number 3?
- A I'm just saying I sold futures in the close. That's a true statement.

(Tr. at 895:5-20.)

178. Moreover, Hunter could have expired May swaps in direct proportion to the sold winter positions. *Id.* at 485-86. In the letter to NYMEX quoted above, Amaranth admitted that this approach would have been easy. Ex. S-170; Tr. at 486. Hunter admitted that this would not have required selling futures in the close. Tr. at 486. Hunter built up a number of futures to roll or sell during this settlement period to offset the selling of winter longs, Hunter could have done the same thing with May swaps. He could have rolled swaps into June. The record in this case is devoid of an explanation of why Hunter's executed trades were superior to this alternative.

179. Amaranth could also have reduced its position by trading a spread. *Id.* at 485. According to Hunter, this had advantages and disadvantages. *Id.* at 787-89. One disadvantage Hunter mentioned was the fact that he did not want to signal the market about large Amaranth trades. *Id.* at 788. However, Hunter executed a large May/June trade (10,000 lots) with Centaurus on April 26<sup>th</sup>. This trade by its very nature had to send signals to the market. Thus, Hunter's testimony in this regard is not credible.

180. There were other alternatives. Hunter could have bought summers and sold winters in separate transactions. *Id.* at 790-91. Hunter asserted that this was risky, because during the time that one "leg" has been lifted the other still needs to be lifted exposing the firm to price movements. *Id.* However, the evidence in this case establishes that Hunter subjected Amaranth to this risk by expiring off a

significant summer position (the May swaps) even though he had not sold a corresponding winter position. Ex. S-233 at Amarnath\_Reg07359.

181. Indeed, Hunter's strategy seems needlessly complex compared with a direct and simple strategy of selling whatever winter length he could and, very shortly thereafter each sale, buying the same quantity of summer length (for example, June, July, August, and September) to maintain spread balance. Tr. at 483-85. That is, Hunter could have adjusted his summer positions in the out months (beyond what he already had in May to expire). Moreover, this carried little delivery risk since adjustment focuses on the out months. Tr. at 488. Also, if Hunter was worried about signaling information to the market with his trades, he could have used multiple brokers to execute his trades as he did with the May futures he sold on settlement day. Furthermore, this would not lock Hunter into having to unwind complex and costly-to-acquire positions if he failed to sell many long winter lots. The method Hunter chose seems more complicated and costly than he needed for what he wanted to do.

182. The following is Hunter's testimony:

Q Another way to do this is just not have a May position at all, have the positions in June that you would need to adjust, depending on how many of those winter contracts you could sell; right?

A You mean if I sold winter, then I could go try and buy a corresponding amount of June?

Q Adjust the June positions and not have to worry about the May position that's going to expire.

A By adjust, the only way to adjust it is to buy June; right?

Q Sure, if you say so. That's another way to do it; right?

A I think it's the only way to do it.

Q Okay.

A But yeah, that's an option.

Q And that wouldn't require you to sell futures in the settlement period for the May contract, would it?

A If you're buying June, it wouldn't require you to do so, no, but you could. You could do it that way.

(Tr. at 486-87.)

183. Hunter claims that on April 26 they spent the day trying to sell winter positions, which would determine the number of futures that would have to be sold (and the number of swaps that would be expired) and that is why they waited until the last eight minutes to sell futures. However, this part of the story is not

credible. The record supports the opposite. There are contemporaneous instant messages on April 26 which show that Amaranth was unable to sell winter until at or about 2:00 p.m.<sup>91</sup> Exs. RES-20-47, 20-48, 20-49; Tr. at 1030-34. In these instant messages, Donohoe is discussing attempts to sell and sales of winter “five minutes before the end of the close and 15 minutes before the end of the close, and into the close.”<sup>92</sup> RES-20-47, 20-48; Tr. at 1031-32. The evidence in this case establishes that Donohoe was trying to sell winter seven minutes before the settlement period expired, which was after Amaranth had placed its order to sell futures in the last eight minutes of the settlement period. The inference drawn from this evidence is that there was no relationship between selling winter in the close and selling futures within the last eight minutes of the close.

184. Hunter’s explanation for the instruction to sell in the last eight minutes is not credible. Since May was the expiry month, why wait for the last eight minutes to start selling positions that needed to be closed? Further, if the positions needed to be closed, the traders knew this and, therefore, did not need to be reminded.

185. The record evidence also demonstrates that Hunter misrepresented his June position on the witness stand. He stated he was quite long June explaining an instant message with Glover in which he stated he was a touch worried about a lower close. A lower settlement price, Hunter testified, would hurt his long June position. As the evidence shows Hunter was short in May and in June. Tr. at 798.

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<sup>91</sup> The instant messages made Hunter testify (he claims no independent recollection) that after the settlement period started the price of the winter futures became more appealing. *Id.* at 496. However, he would have no idea in the morning that that would be the case, and so would have no reason to wait for such an appealing price. Furthermore, the instant messages do not indicate that price was at issue. There is no evidence of efforts to sell winter during the day or that the price of these contracts changed during the day. These contracts, which are somewhat out on the curve, trade every day in large volume. Tr. at 530. The trade data shows that there was a sale at 1:30 p.m. at \$1.98. Exs. RES-20-45; S-1-5 at AMARANTH\_REG057018\_Trades\_2006\_Jan\_May\_WithID.xls. Contracts sold during the settlement period at mostly lower prices (\$1.96 to \$1.97, one sale was at \$2.00), not at better prices, as Hunter testified. Exs. RES-20-47, 20-48, 20-39, 20-40; S1-5 at AMARANTH\_REG057018\_Trades\_2006\_Jan\_May\_WithID.xls.

<sup>92</sup> In another instant message, Hunter says that they were going to “sell Cal 7 and 8” and “H/J” spreads to protect their winter position. Ex. S-18; Tr. at 497-500. Donohoe testified that selling H/J and Cal 8 was a proxy for selling winter. Tr. at 1027-28. However, the transactions dealing with the H/J spread (H is March ’07/winter and J is April ’07/summer) reduce the book independently of the selling of May futures. Tr. at 819, 820:8-15.

He moved a part of his short position from June to May, but that still left him short in June. *Id.* Since Hunter was short both months, lower May and June prices would benefit these positions. Hunter also stated a lower May price would hurt him because he had a May/June spread based on a trade he entered into with Centaurus. In this trade he rolled a 10,000 lot (bought June at the May settlement price plus about 21 cents). Tr. at 492, 555-56. However, Hunter testified that any spread involving May would disappear at the close of settlement, at 2:30 p.m. *Id.* at 558, 810. Moreover, if May fell as much as June, the moves theoretically would have no effect on the May/June roll. If May had fallen more than June, he probably would have done better. *See, id.* at 559. Indeed, if prices had gone down throughout the settlement period, Hunter would have done even better. During the settlement period prices went up then down, and this was profitable for Hunter (although not as profitable relative to not rolling May into June).

186. Another related aspect of Hunter's explanation that is troublesome is that he fails to explain, given the importance he attaches to balancing the book, why the book exhibited so much variation in the extent to which it was imbalanced (the amount by which it was net long or short). Hunter's attorney illustrated this point, saying:

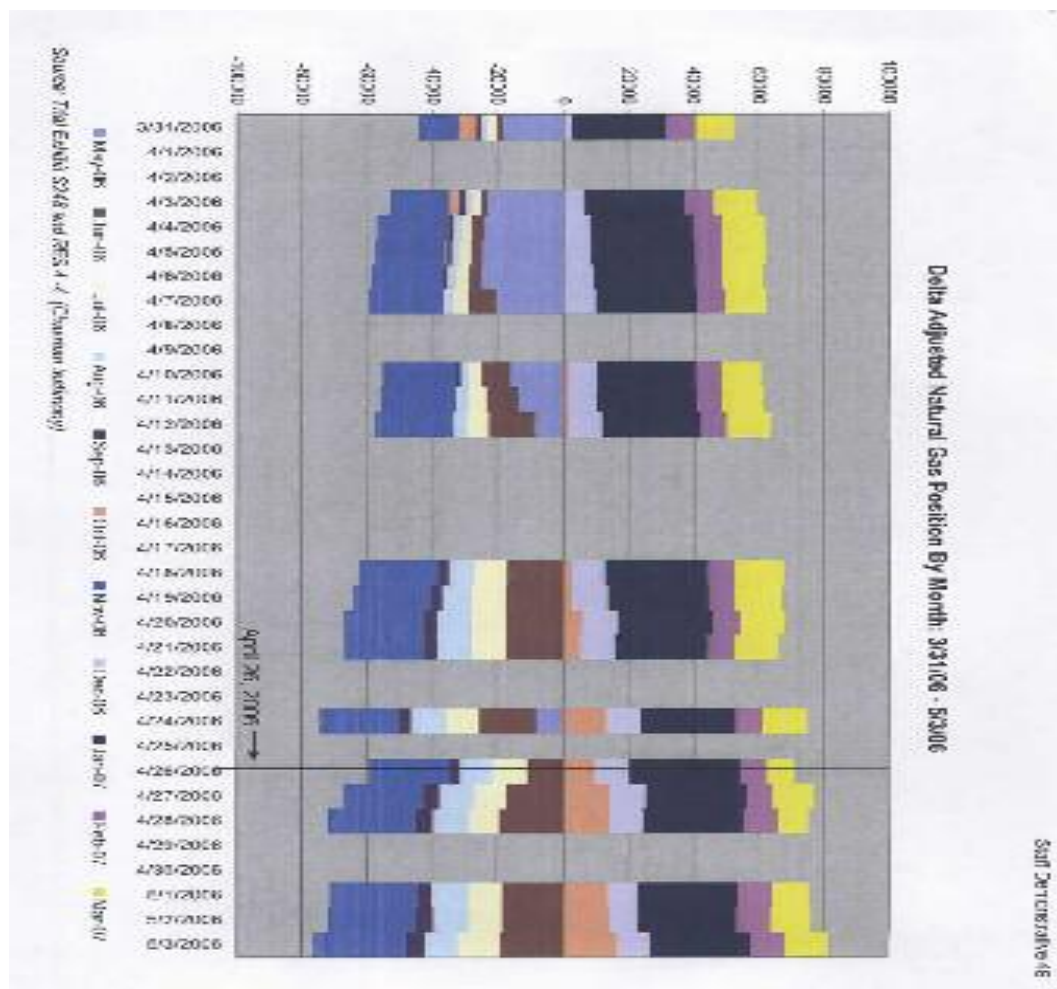
“He never wants his book to get out of balance. Here was his thing: If he sold a lot of winter length, more winter length than he had summer shorts, his book would also be out of balance. That's what he never wants to happen.” (*Id.* at 246.)

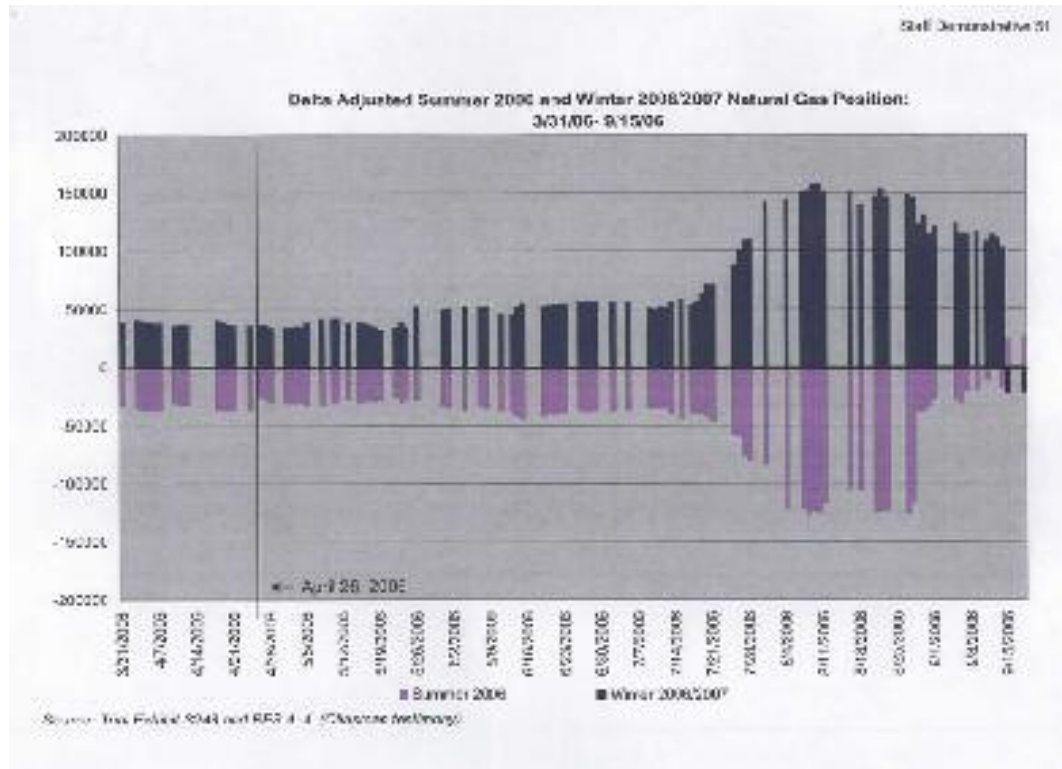
In Hunter's own words: “So the idea, when you try and reduce – because it actually can get quite complex—is that you want to reduce in such a way that you kind of keep your book in balance.” *Id.* at 775:18-23-782. Hunter states that an imbalanced book is undesirable when discussing options for the April settlement day. *Id.* at 812. These statements are hard to reconcile with the increase in the summer-winter spreads subsequent to the settlement periods at-issue in this case. Regarding net length, Hunter testified that his book was not perfectly balanced and that this would be sort of “somewhat a hedge against what we perceived spread movements might be.” *Id.* at 320. Again, observing variation in the balance of the book subsequent to the expiration without explanation compels the conclusion that his explanation for his trading for this settlement period is not credible.

187. Enforcement Staff Demonstrative Exhibits 49 through 51 give an indication as to what happened to Hunter's book. The book becomes increasingly unbalanced over this time and tends to get increasingly long, though there is some volatility. Hunter failed to explain why the book continued to grow in subsequent months. Given the importance he placed on decreasing his book and that

decreasing the book is the foundation for his trading strategy for the last expiry, observing the book increase subsequent to the expiration without explanation cannot be reconciled with his story. This is another aspect of Hunter's explanation that is not credible.

188. Furthermore, considering the summer and winter elements separately, the book seems to be growing rather consistently. This seems inconsistent with Hunter's explanation that he was pressured to trim the book. Hence, Hunter's repeated claims that he never wants his book to get out of balance as he decreases his short summer-long winter spread position is inconsistent with how this spread evolved. Given the importance that Hunter attaches to maintaining a balanced spread, such an apparent inconsistency requires an explanation which is not found in this record. The inference to be drawn from this lack of explanation is that Hunter is not credible. This undermines Hunter's explanation for his trading of the May 2006 natural gas contract. Hunter's explanation is not credible, as there is little evidence of trimming here.





189. Additionally, in all of Hunter's explanations there is studiously an attempt to obfuscate the issue of the positions on the other exchanges. Hunter apparently did not want to mention these positions. There is no explicit explanation of how these positions fit into the strategy of unwinding Hunter's book. Given that the manipulation allegation keys in on the ICE positions, it is inexplicable that Hunter's explanation does not directly address his ICE positions. The ICE positions are, after all, in Hunter's Energy2 book and are clearly part of his summer-winter spread strategy (as they are short summer positions).

190. Further, in general, we have three months with heavy prompt-month selling (relative to what Amaranth typically sold). Ex. S-1 at 58. The pattern across the three months was quite similar, though the selling in the May 2006 contract was concentrated near the end of the settlement period rather than throughout the settlement period as for the March 2006 and April 2006 contracts. Hunter offers three explanations: the crushed spread for the February expiry, his vacation for the March expiry, and trimming the book for the April expiry. It seems curious that three very different explanations gave rise to largely the same trading behavior. For all of the complexity in Hunter's book reduction strategy, it is not inconsistent with Enforcement Staff's manipulation accusation. Hunter's short May and June positions benefited from falling May and June prices.

191. Based on the above, it is concluded that Hunter's arguments are not credible. The preponderance of the evidence demonstrates that Hunter intended to and did manipulate the prices in the three at-issue months. Accordingly, it is found that Hunter exhibited the requisite scienter and violated the first two prongs of Section 1c.1. The following is the last prong of Section 1c.1.

### **3) In Connection with the Purchase of Jurisdictional Natural Gas**

#### **Party Contentions**

##### *Enforcement Staff*

192. Enforcement Staff explains that the question at issue in this proceeding is whether Hunter's trading was "in connection with the purchase or sale of natural gas . . . subject to the jurisdiction of the Commission." Enforcement Staff RB at 37, citing 18 C.F.R. § 1c.1. Hunter erroneously tried to heighten the standard by claiming that Enforcement Staff must show a "direct and measurable impact" and that Hunter's activity created an artificial price in the physical natural gas market. Enforcement Staff RB at 37.

193. According to Enforcement Staff, there are three factors to establish that the NYMEX futures settlement price is connected to physical markets. Enforcement Staff IB at 64, RB at 37. First, NYMEX natural gas futures contracts can become

physical delivery obligations. Enforcement Staff IB at 65. Natural gas futures contracts went to delivery in each at-issue month. *Id.* Second, the physical basis price consists primarily of the NYMEX settlement price, plus a negotiated basis adjustment. *Id.* Third, NYMEX settlement prices are incorporated into published indices through physical basis transactions, and these indices form the price for physical gas sold “at index.” *Id.* at 66, RB at 37. Enforcement Staff contends it does not have to indicate specific physical contracts that were affected by manipulation of the NYMEX settlement price in order to establish impact on the physical market. Enforcement Staff IB at 69.

194. Additionally, Enforcement Staff responds to Hunter’s allegation that Enforcement Staff’s witness Jeffrey Billings did not know whether two surveys attached to his testimony were reliable. Enforcement Staff IB at 68-69, RB at 38-39. The surveys confirmed that physical basis and index pricing are widely used in physical gas markets, which Billings already knew. *Id.* at 39. Moreover, Hunter did not identify any flaw in the surveys’ methodologies. *Id.*

195. Hunter acknowledged the relationship between financial and physical natural gas markets when he agreed with a letter that Amaranth wrote to NYMEX alleging that another firm had manipulated the settlement price. Enforcement Staff IB at 66. The letter stated that manipulation of the NYMEX settlement price would impact consumers “whose cost of natural gas most certainly will be tied to yesterday’s inflated settlement price.” *Id.*

196. In addition, Hunter acted recklessly with regard to the effect of his trading activities on jurisdictional physical transactions. Enforcement Staff IB at 44. Hunter understood that the financial and physical natural gas markets have a close relationship. *Id.*

#### *Hunter*

197. Hunter asserts that Enforcement Staff must demonstrate that Hunter’s trades during the at-issue periods caused an artificial price on NYMEX and in the physical natural gas market, which he characterizes as separate and independent markets. Hunter IB at 25-26. Hunter explains that the two markets exhibit similarities in price because they rely on similar fundamental factors, not because the futures market drives physical market prices. *Id.*

198. A small number of NYMEX futures contracts go to delivery, and their prices are not impacted by the NYMEX settlement price. *Id.* at 29-30. If a NYMEX natural gas futures contract goes to delivery it is at the price negotiated when the futures contract was purchased. *Id.* at 29, RB at 38. On delivery, each



side's margin accounts are credited or debited, depending on the futures contract price. Hunter IB at 29.

199. There is no evidence that Hunter's trading on NYMEX impacted the price of physical natural gas. *Id.* at 27. Enforcement Staff's two expert witnesses, Dr. Vincent Kaminski and Dr. Kathleen King, presented no statistical or analytical evidence showing a connection between the NYMEX settlement price and physical natural gas prices. *Id.* at 27-28.

200. Hunter also asserts that Billings relied on two surveys to support the causal connection between NYMEX settlement price and physical natural gas market prices, but did not know if these surveys were accurate, how they were created, or whether their sample sizes were appropriate. *Id.* at 28-29. Billings did not know whether market manipulation had occurred and agreed that there was nothing unusual about the physical market prices during the at-issue periods. *Id.* He also testified that a variety of factors besides the NYMEX settlement price affect the price of physical natural gas. *Id.* Hunter adds that Enforcement Staff provided no support in the record for their assertion that the NYMEX settlement price is the largest component of a physical basis transaction. Hunter RB at 39.

201. According to Hunter, Enforcement Staff did not identify a physical natural gas transaction that was traded at a price influenced by factors other than supply and demand during the at-issue months. Hunter IB at 27-28. Nor did Enforcement Staff identify a physical market participant who paid an artificially low price for natural gas during the at-issue periods. *Id.*

202. Hunter's witness Michael De Laval, a physical natural gas trader, testified that traders executing real-time physical market transactions do not necessarily use the NYMEX settlement price as a reference point. *Id.* at 28. Furthermore, Billings and De Laval agreed that physical basis contracts do not need to use the expiring NYMEX settlement price as the floating portion of the physical basis transaction. *Id.*

203. Hunter contends that Enforcement Staff failed to establish that he acted recklessly with regard to the effect of his trading activities on jurisdictional physical transactions. Hunter IB at 65-66, RB at 37. Enforcement Staff did not demonstrate that he intended to manipulate the natural gas settlement price, or that the NYMEX settlement price is used to price a substantial amount of physical natural gas transactions. Hunter IB at 65-66. Hunter explains that he was a financial trader and never traded in the physical natural gas market. *Id.* The physical natural gas market is irrelevant to financial traders, and they do not generally consider the impact of their financial trades on the physical market. *Id.*

### Discussion

204. Natural gas is traded in the United States in a number of closely related interacting markets. Transactions executed in the markets can be either physical or financial. Ex. S-1 at 12.

205. The Commission specifically stated that the Anti-Manipulation Rule prohibits (1) fraudulent or deceptive behavior (2) with the requisite scienter, (3) in connection with the purchase or sale of jurisdictional natural gas or electric energy. Hearing Order, *supra* note 7, at P 72. The Commission went on to state that it made clear in Order 670 that reckless disregard to jurisdictional transactions is sufficient to establish this third element and left for hearing the issue whether Hunter acted recklessly with regard to the effect his trades would have on jurisdictional transactions. *Id.* at P 73. The Commission also stated that this “connection with” language will be interpreted broadly. Order 670, 114 FERC ¶ 61,047 at P 22 (2006). As discussed above, Hunter’s actions violated the Anti-Manipulation Rule and it is found that his actions were reckless with regard to jurisdictional transactions.

206. The NYMEX transactions are related to natural gas transactions.<sup>93</sup> First, some NYMEX natural gas futures contracts become physical delivery obligations. The holders of these natural gas futures contracts must make or take delivery of physical natural gas. Ex. S-1 at 39-40. In the instant case the evidence shows that 1,697 contracts went to delivery in March 2006; 1,230 contracts went to delivery in April 2006 and 1,748 contracts went to delivery in May 2006. Ex. S-1 at 39.<sup>94</sup> The evidence further establishes that in accordance with NYMEX rules, buyers and sellers taking physical delivery pay the NYMEX settlement price. NYMEX Rule 220.11(D) states that the last settlement price shall be the basis for delivery. Ex. S-164; *see*, Ex. S-1 at 39; *see also*, Tr. at 1470-71.<sup>95</sup> Furthermore, a trader

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<sup>93</sup> The NYMEX futures prices are also used by natural gas marketers (producers/buyers/others) as a reference point in hedging decisions (related to their exposure to energy prices). Ex. S-10 at 6. Traders and hedgers look at the NYMEX price every day. Tr. at 1431. The NYMEX settlement price of expiring contracts are printed daily in newspapers or reported in financial news channels. Ex. S-10 at 7.

<sup>94</sup> A percentage of NYMEX NG Futures go to delivery at Henry Hub in Sabine, Louisiana. Ex. S-1 at 39.

<sup>95</sup> The NYMEX settlement price thus determines the financial settlement of a futures transaction that goes to delivery. In other words, the NYMEX price determines whether money is placed into or withdrawn from a margin account for the futures that go to delivery (true up). Ex. S-1 at 17; Tr. at 1472-74. The future’s price and the delivery price is the price negotiated at the time the futures contract was purchased.

entering the futures market during times of manipulation with the intention to go to delivery is clearly affected by the manipulation.

207. The NYMEX settlement price also affects physical basis contract prices. These contracts (priced using physical basis) are widely used for monthly physical delivery in North America. Exs. S-3 at 5-6; S-3-1 at 2-4; S-1 at 40. These types of contracts use the NYMEX settlement price plus a negotiated difference in price, or basis (additional amount).<sup>96</sup> However, the largest component in the negotiated price is the NYMEX settlement price. Exs. S-3 at 4-5, S-214-16; Tr. at 1445-52.<sup>97</sup> The evidence in this case shows that the basis is negotiated before the NYMEX settlement price is known. Ex. S-1 at 42-43; Tr. at 1455-56. After the NYMEX settlement price is established, buyers and sellers buy and sell gas at the NYMEX adding or subtracting the basis. Exs. S-3 at 4-5; S-1 at 40. Some contracts establish the NYMEX settlement price without any basis pricing. These contracts go to delivery based solely on the NYMEX settlement price. Tr. at 1465.

208. The NYMEX settlement price indirectly affects index-based contracts. The price of natural gas at specific locations, for next month delivery, results from index pricing. The index pricing is reported by publishers who survey the Bid Week (last week of the month) transactions and calculate volume-weighted average prices known as index prices. Exs. S-3 at 6-7, S-1 at 42-44, 46.<sup>98</sup> The index prices include physical basis transactions in their volume-weighted average calculations. At some trading points the index price is calculated relying solely on physical basis transactions. Ex. S-1 at 42-47. Large volumes of natural gas sold as long-term transactions use index pricing. *Id.* at 47. Significant numbers of natural gas sellers use index pricing to purchase or sell natural gas. Exs. S-3 at 6-7, S-3-3 at 3; Tr. at 1460-61. Moreover, industry participants relied on Platts during the at-issue months. Exs. S-214-16; Tr. 1445-54. Commission data collected through FERC Form 552 show that physical gas market participants rely

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<sup>96</sup> De Laval conceded that physical basis transactions incorporate the NYMEX price. Tr. at 1762.

<sup>97</sup> The price of natural gas for future delivery may be established with three components: NYMEX price (for Henry Hub), location basis, and physical premium. Ex. S-1 at 41.

<sup>98</sup> The NYMEX natural gas futures prompt-month contract final settlement price influences long-term transaction prices by these indices. Ex. S-1 at 4. The monthly index prices rely on physical basis and are tied to the NYMEX settlement price. Exs. S-3-3 at 6-7, S-214-16; Tr. at 1463-64. On many pipelines, basis transactions are a majority of the transactions used to calculate index prices. Exs. S-214-16; Tr. at 1445-51, 1466-67.

heavily on index pricing.<sup>99</sup> Tr. at 1464-65. The evidence in this case shows that the NYMEX futures settlement price has significant impact on physical gas transactions.<sup>100</sup> Accordingly, Hunter's conduct on the trading days at-issue in this case was in connection with natural gas transactions.

209. Hunter was aware of this connection.<sup>101</sup> Hunter was cognizant of the close interplay between the physical and financial natural gas markets. He knew that a natural gas futures contract is a contract traded on NYMEX for the delivery of natural gas at a specified point traded on a monthly basis for delivery at Henry Hub. Tr. at 299. Hunter was also aware that some NYMEX natural gas futures contracts go to delivery and become physical contracts (the holders must make or take delivery according to the specifications of the contract). Tr. at 444. Hunter knew that the NYMEX natural gas futures contract settlement price sets the price of physical transactions. Tr. at 448-49; Ex. S-164. In 2005, Amaranth nearly went to delivery by mistake and Hunter remembered this situation. Tr. at 444. The evidence shows that Amaranth went to delivery in July 2005 for the August 2005 contract and had to pay a premium over the settlement price to another party

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<sup>99</sup> There is a close relationship between the NYMEX settlement price for natural gas futures contracts and the Platts monthly index price for natural gas in the physical gas market. Staff Report, *Excessive Speculation in the Natural Gas Market* (2007) *supra* note 37, at 25.

<sup>100</sup> Amaranth wrote a letter dated August 30, 2006, to the NYMEX expressing concern about the August 2006 trading of natural gas futures contracts. In this letter Amaranth states that "during the last 60 minutes of trading in the September NG contract, the price of the September NG contract spiked up by approximately 10%." Ex. S-166. Amaranth goes on to state that this "price movement did not reflect bona fide supply and demand market forces" and "that the trading that caused the price movement during the closing range of the September NG contract was motivated by the desire of one or more market participants to affect the settlement price of the September NG contract." *Id.* According to Amaranth, "the public relies" on the September natural gas contract "as a key price benchmark for physical and financial contracts involving natural gas." *Id.* "The price spike and lack of liquidity on the close harmed all natural gas market participants, including consumers whose cost of natural gas most certainly will be tied to yesterday's inflated settlement price." *Id.* As can be ascertained from this exhibit, Amaranth admits that the settlement price is a key price benchmark for natural gas transactions and further admits that transactions on NYMEX that are not reflective of bona fide supply and demand market forces harm market participants and the public. *Id.* Hunter was Amaranth's main natural gas trader at this time and this admission will be accepted as an admission against interest by Hunter.

<sup>101</sup> Hunter's expert witness Dr. Quinn admitted that physical gas prices and natural gas futures contract prices are correlated. Tr. at 1937.

to take the gas delivery obligation from Amaranth. Ex. S-1-5 at Amarnath\_Reg057016\_trades\_2005\_withid.xls.

210. Hunter was aware that NYMEX prices form the basis of physical transactions as part of the price formula. Tr. at 451-53. In addition, Hunter knew that “physical basis” transactions involve the delivery of physical gas in the form of a basis transaction and involve the final NYMEX natural gas futures contract as one leg of the transaction. *Id.* at 453-55; Ex. S-1 at 41-42. Moreover, Hunter was aware of industry publications (IFERC and NGI) which use NYMEX as a portion of the basis transactions. Tr. at 453-54. Accordingly, it is found that Hunter acted recklessly with regard to the effect his trades would have on jurisdictional transactions.<sup>102</sup> Enforcement Staff met its burden of proof in this regard. Hunter’s arguments are contrary to record evidence and not given any weight.

### **Penalty Factors**

211. The Commission stated that it reserved the imposition of civil penalties and would make a determination based on the record established in this proceeding. Hearing Order, *supra* note 7, at P 14.

212. The record evidence in this case demonstrates that Hunter violated the Commission’s Anti-Manipulation Rule.<sup>103</sup> Hunter’s violations were serious, willful and harmful. However, a consideration in Hunter’s favor is that Hunter has no known previous violation of the Commission’s Rules. Hunter intended to manipulate the price of natural gas futures contracts, which in turn affected the price of jurisdictional transactions. He knew physical and financial markets prices are interrelated. He recklessly disregarded the impact his manipulation would have on jurisdictional transactions. Hunter knew his conduct was improper and not in compliance with Amaranth compliance manuals and instructions. To wit, the Amaranth compliance manual prohibited traders from “engaging in ‘marking the close’ at or near the close of trading for the primary purpose of attempting to change the closing price to protect or alter the value of an existing position.”<sup>104</sup>

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<sup>102</sup> Hunter argues that a future that goes to delivery is a fixed-price contract that is not affected by the NYMEX settlement price. This argument is flawed. The economic impact of the settlement price is either beneficial or detrimental to market participants who entered or exit the market during the period of manipulation by virtue of the true up of the settlement price *vis a vis* their margin accounts. In other words the settlement price will have a financial impact on the participant. Moreover, a physical transaction agreeing to pay a settlement price is hurt if that price is affected by manipulation.

<sup>103</sup> 18 C.F.R. § 1c.1.

<sup>104</sup> As President of Amaranth Advisors Calgary, U.L.C., Hunter was responsible

Ex. S-175. On the witness stand, Hunter testified that this type of conduct would be inappropriate. Tr. at 449-50. Additionally, Hunter has not been forthright with this tribunal. Hunter's explanations of his conduct are not credible and amount to after-the-fact defenses of his actions. Hunter held executive level positions at Amaranth. Accordingly, his conduct warrants close scrutiny due to his position.

213. There is no question that market manipulation harms the market. As Dr. Kaminski testified, manipulation that took place in this case diluted price discovery and affected hedging. Price discovery and hedging depend on pricing fundamentals and valid predictions about future values, and are impacted by manipulation since the prices then are not connected to fundamentals. Ex. S-1 at 53-55. The manipulation also impacted producers of natural gas who sold around this time frame using natural gas futures contract price as a price benchmark since they were paid less than the market price for their gas. Tr. at 913-20; Ex. S-10 at 12-13.

214. Enforcement Staff points out that Hunter was uncooperative during the investigation, failing to appear at a deposition and refusing to give sworn testimony. Finally, although Amaranth had a compliance manual in place, the violation still occurred and Amaranth did not self report the violation. Accordingly, it appears that Hunter does not deserve any credit for reduction of his penalty.

#### IV. CONCLUSION

215. In this case Enforcement Staff has met its burden of proof.<sup>105</sup> The evidence shows that in February, March and April 2006, Hunter's trades were unique. Hunter's explanations of his conduct are not credible. Therefore, it is concluded that Hunter intended those trades solely for the benefit of Amaranth, he intended to lower the settlement price in those three months in order to benefit the book's positions in other markets. Consequently, it is found that Hunter's conduct was fraudulent, with the requisite scienter and with reckless disregard to jurisdictional transactions.<sup>106</sup> Accordingly, all three prongs of the Anti-Manipulation Rule have

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of ensuring employee knowledge of and compliance with this manual.

<sup>105</sup> On January 11, 2010, Enforcement Staff filed a declaration in compliance with the recently issued Policy Statement on Disclosure of Exculpatory Materials, 120 FERC ¶ 61,248 (December 17, 2009) (Brady Policy Statement).

<sup>106</sup> Amaranth dominated trading in the U. S. financial market in 2006. It frequently held 40 percent or more of the open interest in natural gas futures in a particular contract month. Its massive trading "moved prices and increased price

been met and it is concluded that Hunter violated Section 1c.1 of the Commission's Rules.

216. This order is subject to review by the Commission on exceptions or on its own motion, as provided by the Commission's Rules of Practice and Procedure.

Carmen A. Cintron  
Presiding Administrative Law Judge

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volatility.” Staff Report, *Excessive Speculation in the Natural Gas Market* (2007) *supra* note 37, at 114, 119. The conclusions in this decision supported by the record in this case are consistent with the findings in the Senate Report.

Document Content(s)

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