

**PUBLIC UTILITIES COMMISSION**505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298**FILED**9-02-14  
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September 2, 2014

TO PARTIES OF RECORD IN INVESTIGATION 11-11-009.

This proceeding was filed on November 10, 2011, and is assigned to Commissioner Michel Peter Florio and Administrative Law Judge (ALJ) Amy Yip-Kikugawa. This is the decision of the Presiding Officer, ALJ Yip-Kikugawa.

Any party to this adjudicatory proceeding may file and serve an Appeal of the Presiding Officer's Decision within 30 days of the date of issuance (i.e., the date of mailing) of this decision. In addition, any Commissioner may request review of the Presiding Officer's Decision by filing and serving a Request for Review within 30 days of the date of issuance.

Appeals and Requests for Review must set forth specifically the grounds on which the appellant or requestor believes the Presiding Officer's Decision to be unlawful or erroneous. The purpose of an Appeal or Request for Review is to alert the Commission to a potential error, so that the error may be corrected expeditiously by the Commission. Vague assertions as to the record or the law, without citation, may be accorded little weight.

Appeals and Requests for Review must be served on all parties and accompanied by a certificate of service. Any party may file and serve a Response to an Appeal or Request for Review no later than 15 days after the date the Appeal or Request for Review was filed. In cases of multiple Appeals or Requests for Review, the Response may be to all such filings and may be filed 15 days after the last such Appeal or Request for Review was filed. Replies to Responses are not permitted. (See, generally, Rule 14.4 of the Commission's Rules of Practice and Procedure at [www.cpuc.ca.gov](http://www.cpuc.ca.gov).)

If no Appeal or Request for Review is filed within 30 days of the date of issuance of the Presiding Officer's Decision, the decision shall become the decision of the Commission. In this event, the Commission will designate a decision number and advise the parties by letter that the Presiding Officer's Decision has become the Commission's decision.

/s/ MARYAM EBKE for  
Timothy J. Sullivan  
Chief Administrative Law Judge (Acting)

TJS:lil

Attachment

ALJ/POD-AYK/lil

Decision **PRESIDING OFFICER'S DECISION** (Mailed 9/2/2014)

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Order Instituting Investigation on the Commission's Own Motion into the Operations and Practices of Pacific Gas and Electric Company's Natural Gas Transmission Pipeline System in Locations with Higher Population Density.

Investigation 11-11-009  
(Filed November 10, 2011)

(See Appendix A for a list of appearances.)

**PRESIDING OFFICER'S DECISION REGARDING ALLEGATIONS OF  
PACIFIC GAS AND ELECTRIC COMPANY'S VIOLATION REGARDING  
OPERATION OF ITS NATURAL GAS TRANSMISSION PIPELINE SYSTEM IN  
LOCATIONS WITH HIGHER POPULATION DENSITY**

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**PRESIDING OFFICER'S DECISION REGARDING ALLEGATIONS OF  
PACIFIC GAS AND ELECTRIC COMPANY'S VIOLATION REGARDING  
OPERATION OF ITS NATURAL GAS TRANSMISSION PIPELINE SYSTEM IN  
LOCATIONS WITH HIGHER POPULATION DENSITY**

**1. Summary**

This decision finds that Pacific Gas and Electric Company (PG&E) failed to maintain and operate all segments of its natural gas transmission pipeline system at the proper class location in violation of Title 49 of the Code of Federal Regulations, Section 192. Further, this decision finds that PG&E's failure to comply with the federal safety regulations results in a violation of Pub. Util. Code § 451. We find 3,643 violations, which results in a total of 18,038,359 days in violation.

This proceeding remains open to consider the fines and remedies to be imposed for these violations, as well as any violations found in Investigation (I.) 11-02-016 and I.12-01-007. Further, this proceeding remains open to address a motion filed by the City of San Bruno on January 17, 2014, for an order to show cause on the grounds that PG&E had violated Rules 1.1 and 12.1 of the Commission's Rules of Practice and Procedure.

**2. Factual Background**

On September 9, 2010, a 30-inch diameter segment of a natural gas transmission pipeline owned and operated by Pacific Gas and Electric Company (PG&E) ruptured in a residential area in San Bruno, California.<sup>1</sup> The fire and explosion caused by the rupture resulted in 8 fatalities, numerous injuries, and

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<sup>1</sup> The affected pipeline is also known as Line 132. The segment which ruptured is identified as Segment 180.

destroyed or damaged over 100 homes. Immediately after the incident, the Commission's Consumer Protection & Safety Division (CPSD)<sup>2</sup> and the National Transportation Safety Board (NTSB) opened separate investigations into the cause of the rupture on Line 132, Segment 180. CPSD's investigations resulted in the opening of the following three separate Order Instituting Investigation (OII) proceedings:

1. On February 24, 2011, the Commission opened Investigation (I.) 11-02-016 to determine whether PG&E violated any provision or provisions of the California Public Utilities Code, Commission general orders or decisions, or other applicable rules or requirements pertaining to safety recordkeeping for its gas service and facilities.
2. On November 10, 2011, the Commission opened this proceeding, I.11-11-009, to determine whether any of PG&E's operations and practices of its natural gas transmission pipeline system in locations with higher population density were in violation of state or federal statutes and regulations or Commission rules, general orders or decisions.
3. On January 12, 2012, the Commission opened I.12-01-007 to determine whether PG&E, and its officers, directors, and managers, violated any provisions of the California Public Utilities Code, Commission General Orders or decisions, or other applicable standards, laws, rules or regulations in connection with the San Bruno fire and explosion on September 9, 2010.

On September 23, 2010, the Commission issued Resolution L-403.

Ordering Paragraph (OP) 18 directed PG&E, among other things, to "review the classification of its natural gas transmission pipelines and determine if those

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<sup>2</sup> As of January 1, 2013, CPSD has been renamed the Safety and Enforcement Division (SED). However, for consistency and to avoid confusion, this Decision continues to refer to SED by its former name, CPSD.

classifications have changed since the initial designation.”<sup>3</sup> Ordering Paragraph 19 directed PG&E to “report the results of its review of the classification of its natural gas transmission lines and any subsequent changes to those classifications since PG&E’s initial designation to the Executive Director within 10 days of the date of this Resolution.”<sup>4</sup> PG&E submitted its response to Resolution L-403 on October 4, 2010. With respect to OP 18, PG&E stated that based on its review of pipelines operating at greater than 60 psig, PG&E “identified 1,057 miles of pipeline where the current classification is different from the initial classification.”<sup>5</sup> With respect to OP 19, PG&E committed to perform a system-wide verification of pipe class location designations and report the results by June 30, 2011. To complete the requirements of OP 19, PG&E retained Wilbros Engineers, (U.S.), LLC (Wilbros) to perform the system-wide verification.

On January 3, 2011, the NTSB issued Safety Recommendation P-10-2 and -3 (Urgent) and P-10-4. The Safety Recommendation noted that the NTSB’s examination of Segment 180 and PG&E’s records found a discrepancy between what had been installed and PG&E’s as-built drawings and alignment sheets. The NTSB concluded that there was a possibility that there were other “discrepancies between installed pipe and as-built drawings in PG&E’s gas transmission system.”<sup>6</sup> The NTSB was concerned that inaccuracies in PG&E’s records could result in incorrect maximum allowable operating pressure

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<sup>3</sup> Resolution L-403, adopted September 23, 2010, OP 18.

<sup>4</sup> Resolution L-403, OP 19.

<sup>5</sup> OIL, Attachment 2, PG&E’s Oct. 4, 2010 Letter to the Commission’s Executive Director at 2-3.

<sup>6</sup> OIL, Attachment 3, Safety Recommendation P-10-2 and -3 (Urgent) and P-10-4 at 2.

(MAOP)<sup>7</sup> for the pipeline to be safely operated. Consequently, the NTSB recommended that PG&E use "traceable, verifiable, and complete" records to confirm that the MAOP in class 3 and class 4 locations and class 1 and class 2 locations in high consequence areas (HCA) were properly established.<sup>8</sup>

On June 30, 2011, PG&E submitted a report on the results of Wilbros' review of PG&E's system-wide pipeline class location designations, as directed in OP 19 of Resolution L-403. This report, referred to in this decision as the Class Location Report, determined that approximately 550 miles of PG&E's transmission pipeline system had an incorrect class location designation.<sup>9</sup> Of that number, about 173 miles of pipeline had increased in class designation and, thus, may have an MAOP higher than appropriate for its current class location. In light of the findings in the Class Location Report, the Commission concluded that "PG&E appears to have failed to comply with federal regulations concerning

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<sup>7</sup> MAOP represents the maximum pressure at which a pipeline can be operated safely. It is a fraction (i.e. less than 100%) of the pipe's design pressure and set based on class location, with lower MAOPs in areas with higher population density (i.e., Class 3 and Class 4) or designated as high consequence areas.

<sup>8</sup> OIL, Attachment 3, Safety Recommendation P-10-2 and -3 (Urgent) and P-10-4 at 3. Pipeline locations are classified pursuant to Title 49 of the Code of Federal Regulations (49 C.F.R) § 192.5(b) and the class location designations reflect population density in the immediate vicinity of the pipeline. For example, a class 1 location is the least densely populated location adjacent to the pipeline while a class 4 location is the most densely populated location adjacent to the pipeline segment. HCAs are specific areas where a release of natural gas could have the most significant adverse consequences. HCAs are part of a pipeline operator's integrity management program and defined in 49 C.F.R. § 192.903. Pipeline segments near more densely populated areas or HCAs require stronger pipe or reduced gas pressure to mitigate the potential dangers to those populated areas.

<sup>9</sup> OIL, Attachment 5, Class Location Report at 4.

the protection of persons and property in areas with higher concentrations of human occupancy and activity."<sup>10</sup>

### **3. Procedural Background**

The Commission opened this OII on November 10, 2011. PG&E filed its initial response to the OII on January 17, 2012. PG&E filed subsequent updates to its initial response on February 2, and April 2, 2012.<sup>11</sup> Prehearing conferences were held on February 3 and April 14, 2012. An Assigned Commissioner's Scoping Ruling and Memo (Scoping Memo) was issued on April 26, 2012.

CPSD submitted its investigative report on May 25, 2012.<sup>12</sup> The City and County of San Francisco (CCSF) submitted intervenor testimony on June 25, 2012. PG&E's testimony was served on July 23, 2012, and CPSD's rebuttal testimony was served on August 15, 2012. Evidentiary hearings were set for August 23 - August 31, 2012.

On August 16, 2012, CPSD and PG&E filed a joint stipulation that the issue of PG&E's use of assumed Specified Minimum Yield Strength (SMYS) values in excess of 24,000 pounds per square inch (psi) should be considered in I.12-01-007.<sup>13</sup> According to PG&E and CPSD, consideration of this issue in a

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<sup>10</sup> OII at 5.

<sup>11</sup> On July 3, 2013, PG&E filed an amendment to the April 2, 2012 update.

<sup>12</sup> The public version of the Investigative Report is Exhibit CPSD-1; the confidential version is Exhibit CPSD-1C.

<sup>13</sup> SMYS is set pursuant to 49 C.F.R. § 192.107 and represents the lowest pressure at which steel pipe will experience permanent deformation. Section 192.107 allows an operator to use an assumed SMYS value under certain circumstances but requires that the SMYS be set at 24,000 psi in instances where a pipeline operator lacks pipeline specifications or tensile tests. As explained in greater detail in Section 8 of this decision, the disputed issue regarding assumed SMYS in these two proceedings is whether PG&E complied with 49 C.F.R. § 192.107 when it used an assumed SMYS value above 24,000 psi.

single proceeding would be more efficient and would prevent any inconsistency in deciding this issue.

CPSD and PG&E subsequently filed a motion on August 21, 2012 to cancel hearings and set a briefing schedule. In that motion, CPSD and PG&E stated that the only disputed issue was whether PG&E's use of assumed SMYS values above 24,000 psi was a violation of federal regulations. The motion further stated that, consistent with their joint stipulation, PG&E and CPSD had determined that this issue should be considered in another docket.

A hearing was held on August 23 and 27, 2012 to address the joint stipulation and motion. Based on the discussion, and as confirmed in a subsequent Administrative Law Judge (ALJ) Ruling, issued on September 4, 2012, the issue of assumed SMYS values would be heard in a joint hearing for I.11-11-009 and I.12-01-007 on September 24, 2012. The joint hearing would ensure that there was no duplication of effort by parties in presenting this issue and consistency in the resolution of this disputed issue.<sup>14</sup>

On September 7, 2012, CPSD filed two coordinated motions in I.11-11-009, I.12-01-007 and I.11-02-016 (jointly, the "Pipeline OIIs") seeking leave to serve additional prepared testimony regarding PG&E's financial resources and permission to file a single coordinate brief regarding fines and remedies. The

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<sup>14</sup> While PG&E and CPSD raised valid concerns regarding consideration of the assumed SMYS values issue in two separate dockets, we remind them that it is the Commission, and not parties, who determines how this concern should be addressed. While parties may propose a certain process, they should never proceed under the assumption that their proposal has been adopted absent express authorization from the Commission.

two motions were granted on September 25, 2012.<sup>15</sup> As a result, this decision only addresses whether PG&E has committed the violations alleged by CPSD. The penalties to be assessed will be considered and addressed in a separate decision.

A joint evidentiary hearing concerning assumed SMYS values was held for I.11-11-009 and I.12-01-007 on September 24, 2012. On October 5, 2012, CPSD filed a non-consolidated motion to suspend all procedural dates and activities for I.11-11-009, I.12-01-007, I.11-02-016 and Rulemaking (R.) 11-02-019<sup>16</sup> in order to facilitate settlement negotiations. CPSD's motion was granted with respect to I.11-11-009, I.12-01-007 and I.11-02-016 on October 11, 2012, but denied with respect to R.11-02-019 on October 12, 2012. As a result of further extensions, opening briefs on violations were filed on November 20, 2012 and reply briefs were filed on December 5, 2012.

#### **4. Standard of Review**

It is well settled that the standard of proof in Commission investigation proceedings is by a preponderance of the evidence.<sup>17</sup> This standard is applied in this instance.

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<sup>15</sup> *Administrative Law Judges' Ruling Granting Motions of Consumer Protection and Safety Division for Leave to Serve Additional Prepared Testimony and For Permission to File a Single Coordinated Brief Regarding Fines and Remedies and Notice of Hearing*, issued September 25, 2012.

<sup>16</sup> R.11-02-019 is the Commission's rulemaking to adopt new safety and reliability programs for natural gas transmission and distribution pipelines.

<sup>17</sup> See, e.g., *Modified Presiding Officer's Finding Tracfone Wireless, Inc. Acted Unlawfully by Failing to Pay Telecommunication user Fees and Public Purpose Program Surcharges*, Decision (D.) 12-02-032, at 4 (slip op.); *Opinion Ordering Penalties and Reparations [Cingular]*, D.04-09-062, at 13 (slip op.); *Final Decision [Communication Telesystems International]* (1997) 72 CPUC2d 621, 633.

## 5. The OII and the Alleged Violations

The Commission opened this OII to determine whether PG&E's natural gas transmission pipeline system was safely operated in areas of greater population density or HCAs pursuant to 49 C.F.R. §§ 192.5 et seq. Second, the OII would review and determine whether PG&E properly reviewed its natural gas transmission pipelines on a regular basis and modified MAOP, replaced pipeline segments with stronger pipe commensurate with the actual class location, and reviewed the physical condition of pipeline segments to reflect changes in population density, as required under federal and state law.

The OII noted that PG&E had indicated in its Class Location Report that 172.1 miles of its natural gas transmission lines were identified as being located in areas of lower population density than was actually the case.<sup>18</sup> The OII made a preliminary finding that the erroneous classification of pipeline segments was a violation of 49 C.F.R. § 192.5.<sup>19</sup> Additionally, the OII made a preliminary finding of the following alleged violations:

1. Title 49 C.F.R. § 192.609 requires that PG&E make a study to determine the actual class location of the pipeline segment "whenever" there is a change in population density. Misclassified pipeline segments may be evidence that PG&E failed to comply with this class study requirement at the time population density actually changed.<sup>20</sup>
2. Title 49 C.F.R. § 192.611 requires pipeline operators take steps to confirm or revise the MAOP of the pipeline within 24 months of a change in class location. Misclassified pipeline segments requiring a reduction in MAOP gas pressure or a replacement

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<sup>18</sup> OII at 7.

<sup>19</sup> Title 49 C.F.R. § 192.5 specifies the criteria for classifying pipeline locations.

<sup>20</sup> OII at 9.

with higher strength pipe may have been operating above federally-mandated maximum levels.<sup>21</sup>

3. Title 49 C.F.R. § 192.613 requires pipeline operators to have a procedure for continuing surveillance of their facilities to determine and take appropriate action concerning, among other things, changes in class location. PG&E's misidentification of 172.1 miles of pipeline segments suggests that it lacks a proper procedure for continuing surveillance of its facilities.<sup>22</sup>
4. Title 49 C.F.R. § 192.705 requires pipeline operators to have a patrolling program to identify changes in class locations on its general system of natural gas pipelines and the maximum intervals between patrols. The longest interval, for class 1 and class 2 locations that are not at highway or railroad crossings, is "15 months, but at least once per calendar year."<sup>23</sup> The misclassified pipeline identified in the Class Location Report, sometimes two or more classes or levels out-of-class, suggests a possible lack of regular and/or adequate patrolling.<sup>24</sup>
5. Pub. Util. Code § 451 requires every public utility to "furnish and maintain ... equipment, and facilities ... as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public." PG&E's failure to comply with federal safety regulations for the operation of its natural gas transmission pipeline system may establish a failure to provide Californians in its service territory with safe, healthful, comfortable, and convenient natural gas transmission service, instrumentalities, equipment, and facilities.<sup>25</sup>

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<sup>21</sup> OII at 8.

<sup>22</sup> OII at 11.

<sup>23</sup> 49 C.F.R. § 192.705(b).

<sup>24</sup> OII at 10.

<sup>25</sup> OII at 11.

CPSD's Investigative Report alleged all the violations identified in the OII.

The report further alleged the following violations:<sup>26</sup>

1. Title 49 C.F.R. § 192.603 requires PG&E to keep necessary to administer the procedures established under 49 C.F.R. § 192.605.
2. Title 49 C.F.R. § 192.605 requires PG&E to have procedural manuals for operations, maintenance and emergencies for each pipeline.
3. Title 49 C.F.R. § 192.619 prohibits operation of a segment of pipeline above its MAOP and specifies the methodology for determining the MAOP. As a result of misclassified pipeline, segments were operated at pressures greater than allowed for the current class location.
4. Title 49 C.F.R. § 192.709 specifies the records to be maintained for transmission lines and the retention period. Subpart (c) requires that records of patrols be retained for at least five years or until the next patrol, whichever is longer. PG&E could not provide CPSD staff records of patrols for some of the out-of-class pipeline segments under review. This would suggest that PG&E is not in compliance with 49 C.F.R. § 192.709(c).
5. Title 49 C.F.R. § 192.13(c) requires pipeline operators to maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under Section 192 of Title 49. By failing to properly classify its pipeline segments, PG&E is not complying with its own rules for updating and ensuring appropriate class location changes.
6. 49 C.F.R. § 192.107 specifies the methodology for determining the yield strength for steel pipe. The yield strength value is used to calculate percent SMYS and MAOP for a pipeline segment. CPSD alleges that PG&E's use of an assumed SMYS value above the 24,000 psi for unknown pipe results in MAOP

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<sup>26</sup> Exhibit CPSD-1 at 57.

exceeding the maximum limits set in 49 C.F.R. § 192.107 and jeopardizes public safety.

CPSD alleges that PG&E’s failure to comply with class location requirements has been ongoing. It notes that since 1971, PG&E failed to perform a class location study for 224 segments, as required by 49 C.F.R. § 192.609.<sup>27</sup> In addition to alleging violations of federal regulations, CPSD also found in some instances an associated violation of Pub. Util. Code § 451. CPSD’s alleged violations are summarized in Table 1 below.

**Table 1**  
**CPSD’s Summary of Alleged PG&E Violations<sup>28</sup>**

| Regulation   | Number of Violations | Pre-7/26/1993 Days in Violation | Post-7/26/1993 Days in Violation | Total Days in Violation |
|--|----------------------|---------------------------------|----------------------------------|-------------------------|
| 49 C.F.R. § 192.107 (b)/P.U. Code § 451 (Assumed SMYS Values)                    | 133                  | 437,784                         | 753,878                          | 1,191,662               |
| 49 C.F.R. § 192.13(c) (Not Following Procedures)                                 | 843                  | 2,034,251                       | 4,603,039                        | 6,097,290               |
| 49 C.F.R. § 192.609 Violations (Required Study)                                  | 224                  | 523,961                         | 1,068,420                        | 1,592,381               |
| 49 C.F.R. § 192.611 Violations (MAOP Confirmation/Revision)                      | 224                  | 523,961                         | 1,068,420                        | 1,592,381               |
| 49 C.F.R. § 192.613 Violations (Continuing Surveillance)                         | 677                  | 1,665,053                       | 3,269,307                        | 4,934,360               |
| 49 C.F.R. § 192.619 Violations (Non-Commensurate SMYS)                           | 63                   | 147,924                         | 332,994                          | 480,918                 |
| 49 C.F.R. § 192.603, 49 C.F.R. § 192.605, 49 C.F.R. § 192.709(c) (Recordkeeping) | 898                  | N/A                             | N/A                              | N/a                     |
| <b>TOTAL</b>   | <b>3,062</b>         | <b>5,332,934</b>                | <b>10,556,057</b>                | <b>15,888,990</b>       |

<sup>27</sup> Exhibit CPSD-1 at 50, Table 10.

<sup>28</sup> Exhibit CPSD-1 at 58.

## 6. Issues in Dispute

The factual issues in this proceeding are, for the most part, not in dispute. PG&E does not dispute the facts presented by CPSD and has acknowledged that it has not maintained nor operated all segments of its transmission pipeline system at the proper class location.<sup>29</sup> Although PG&E has argued that the failure to maintain the proper class location did not necessarily present a serious risk to public safety, this does not take away from the fact that PG&E did not comply with the applicable provisions of Section 192 of Title 49. Based on PG&E's acknowledgement that it is responsible for maintaining complete, up-to-date class locations for its entire gas transmission system, and that that it has failed to do so, we find that PG&E has violated 49 C.F.R. §§ 192.13(c), 192.609, 192.611, 192.613, and 192.619.<sup>30 31</sup>

The remainder of this decision addresses the following disputed issues.

1. How should the Commission count the number of violations associated with PG&E's failure to maintain accurate class location designations?
2. Did PG&E's procedure for establishing an assumed SMYS value above 24,000 psi violate 49 C.F.R. § 192.107(b)?

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<sup>29</sup> See, e.g., Exhibit PG&E-1 at 1-1- 1-2 (Testimony of Jane K. Yura); PG&E Opening Brief, filed November 20, 2013, at 1.

<sup>30</sup> We take PG&E's acknowledgement that it has not operated all segments of its gas transmission pipeline system at the proper class location as an admission of non-compliance with the federal regulations. Failure to comply with the mandatory requirements of Title 49 C.F.R provisions relating to class location, patrolling and continuing surveillance are violations of those provisions.

The issue of whether PG&E's use of assumed SMYS values above 24,000 psi violated 49 C.F.R. § 192.107(b) and Pub. Util. Code § 451 are considered separately, in Section 8 below.

<sup>31</sup> The recordkeeping violations alleged in this proceeding are considered in the Recordkeeping OII (I.11-02-016).

3. Did PG&E violate Pub. Util. Code § 451 in those instances where the assumed SMYS values resulted in inappropriately high MAOPs?

## **7. Number of Violations**

### **7.1. Parties' Positions**

#### **7.1.1. CPSD**

CPSD alleges that PG&E's failure to maintain accurate class location designations violate various provisions of 49 C.F.R. § 192 and Pub. Util. Code § 451. It maintains that, based on the language in 49 C.F.R., the number of violations should be considered on a segment-by-segment basis.<sup>32</sup> In support of this conclusion, CPSD notes that the general provision of Title 49, Subpart L (Operations) states "No person may operate a segment of pipeline unless it is operated in accordance with this subpart."<sup>33</sup> Similarly, the general provision of Title 49, Subpart M (Maintenance) provides "No person may operate a segment of pipeline, unless it is maintained in accordance with this subpart."<sup>34</sup> CPSD further identifies language in the various regulations listed in Table 1 that specifically refer to a "segment" of pipeline.<sup>35</sup>

CPSD interprets the language in 49 C.F.R. to mean that there is a violation in every instance where an individual pipeline segment fails to:

1. comply with PG&E's own safety rules and procedures;

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<sup>32</sup> Opening Brief of the Consumer Protection and Safety Division (CPSD Opening Brief), filed November 20, 2013 at 6-7; Reply Brief of the Consumer Protection and Safety Division (CPSD Reply Brief), filed December 5, 2012, at 6.

<sup>33</sup> CPSD Opening Brief at 3 (citing 49 C.F.R. § 192.603(a)).

<sup>34</sup> CPSD Opening Brief at 5 (citing 49 C.F.R. § 192.703(a)).

<sup>35</sup> CPSD Opening Brief at 3-5.

2. have adequate records;
3. have a class study when increased population density that might result in a class change;
4. have confirmation or revision of MAOP when a class location change required it;
5. have been provided adequate continuing surveillance to discover a potential class change;
6. have been operated above the MAOP for its actual class location; or
7. have patrol records for a period of at least five years or more.<sup>36</sup>

CPSD notes that the segments used to calculate the violations are based on those identified in the Class Location Report. It contends that the Commission should disregard any arguments by PG&E that the number of segments used in calculating violations are overstated or incorrect since “the segments used by CPSD were provided by PG&E. Those identifications were the best available and, in fact, the only ones available to PG&E and CPSD in April through July 2012 . . . ”<sup>37</sup> CPSD further notes that a single misclassified segment of pipeline may violate various provisions of the C.F.R.<sup>38</sup> However, it believes that result serves to highlight the significant consequences of misclassification, and does not constitute a “layering” of violations.<sup>39</sup> CPSD also discusses the risks

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<sup>36</sup> CPSD Opening Brief at 8.

<sup>37</sup> CPSD Opening Brief at 7.

<sup>38</sup> See, CPSD Reply Brief at 6, where CPSD noted that the effect of misclassifying Line 300B, Segment 350 resulted in three distinct violations of 49 C.F.R.

<sup>39</sup> CPSD Reply Brief at 4-5.

associated with not complying with the federal regulations and concludes that the violations result in substantial risks to public safety.<sup>40</sup>

CPSD disagrees with PG&E's contention that various violations should be considered a "single course of action" that could be categorized generally as a breakdown in PG&E's ability to effectively implement its patrol, class location and continuing surveillance process. CPSD first contends that, contrary to PG&E's belief, the number of violations is discrete and can be easily quantified. CPSD notes that PG&E's rules and procedures identify portions of its transmission pipeline system as segments, and the Class Location Report identifies these portions on a segment-by-segment basis.<sup>41</sup> It maintains that the cases relied on by PG&E are not applicable to this proceeding, since the underlying facts were not similar.<sup>42</sup>

CPSD further argues that continuing surveillance should not be considered a subset of class location requirements. It believes that continuing surveillance "encompasses all aspects of updating population, employment, and construction activity surrounding PG&E's transmission pipelines."<sup>43</sup> Additionally, CPSD asserts that any penalties imposed as a result of PG&E's violations should serve to deter the utility from committing those violations again.<sup>44</sup> Finally, CPSD maintains that whether or not PG&E's patrolling or

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<sup>40</sup> CPSD Opening Brief at 9-12.

<sup>41</sup> CPSD Reply Brief at 5.

<sup>42</sup> CPSD Reply Brief at 7-8.

<sup>43</sup> CPSD Reply Brief at 2.

<sup>44</sup> CPSD Opening Brief at 8.

continuing surveillance processes are effective should be considered and corrected for purposes of public safety.

### **7.1.2. PG&E**

PG&E states: “PG&E had procedures and standards in place that should have resulted in class locations being accurately and timely identified and updated when necessary, but the [Class Location Report] showed these procedures were not consistently followed and, thus, were not effective.”<sup>45</sup> As such, PG&E believes that it is this “breakdown” in its processes that constitutes CPSD’s alleged violation. Additionally, PG&E does not believe it is appropriate to consider multiple code violations associated with a single pipeline segment individually, as it considers this method of measurement to overstate the number of “violation days.”<sup>46</sup>

PG&E advances various arguments why it is inappropriate to measure violations on a per segment basis. It notes that since some of its pipeline segments are only a few feet in length, a single change in population density (e.g., construction of a building) could affect multiple segments. Moreover, PG&E attributes 20% of the differences in class location designation to the application of more conservative criteria than required under federal regulations.<sup>47</sup>

PG&E additionally notes there is no standard definition for the term “segment.” PG&E defines this term to identify “a continuous length of pipe with

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<sup>45</sup> Pacific Gas and Electric Company’s Response to Order Instituting Investigation (PG&E Initial Response), dated January 17, 2012, at 2.

<sup>46</sup> PG&E Opening Brief at 5-6.

similar characteristics (pipeline specifications, class location, etc.).”<sup>48</sup> Based on its definition, PG&E states that the number of segments at any given point in time will change. It notes “pipeline replacement jobs, maintenance activities, and the installation one new components and equipment, including compressors and valves, all potentially impact the total number of segments.”<sup>49</sup> Thus, the actual number of misclassified segments has changed during the course of this proceeding.

PG&E believes that as a result of the constant change in the number of pipeline segments affected, the alleged violations are not discrete or easily quantified. It further contends that the Commission is not required to perform a segment-by-segment, day-by-day computation of violations. As such, PG&E recommends that the Commission consider the single core issue – PG&E’s failure to properly maintain its class location designations due to problems in its patrol, class location and continuing surveillance processes – as the sole violation in this proceeding.<sup>50</sup> As support, PG&E cites to *Utility Consumers’ Action Network v. SBC Communications (UCAN)*, (D.08-08-017) 2008 Cal. PUC LEXIS 302 and *Pacific Gas and Electric Company* (D.99-06-080) 1999 Cal PUC LEXIS 430.

PG&E further disputes CPSD’s conclusion that the misclassified pipeline segments presented an immediate safety threat to Californians. It notes that “[t]he majority of PG&E’s transmission pipeline system operates at a much lower

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<sup>47</sup> Pacific Gas and Electric Company’s Response to Order Instituting Investigation (PG&E Initial Response), filed January 17, 2012, at 3.

<sup>48</sup> PG&E Opening Brief at 6.

<sup>49</sup> PG&E Opening Brief at 6.

<sup>50</sup> PG&E Opening Brief at 7-8.

percentage of SMYS than the maximum permissible under the Code. ....  
Consequently, an increase in the class location designation does not necessarily mean the pipeline segment is operating at too high a pressure.”<sup>51</sup>

### **7.1.3. CCSF**

CCSF supports CPSD’s conclusion that each instance where PG&E has failed to identify a change in class location constitutes a violation of one, or multiple, federal regulations. CCSF states that the requirement for operators to maintain and operate their pipeline commensurate with the surrounding population density has been in effect since 1955.<sup>52</sup> CCSF notes that the 1955 ASA B.31.1.8 standard included provisions establishing the population-based class location system and the calculation of MAOP to ensure that the pressure for pipeline was operated in a manner commensurate with the class location. This ASA B.31.1.8 provision was subsequently incorporated into GO 112 and 49 C.F.R.<sup>53</sup> CCSF believes that since PG&E has not yet determined when changes

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<sup>51</sup> PG&E Initial Response at 18.

<sup>52</sup> Opening Comments of the City and County of San Francisco (CCSF Opening Brief), filed November 20, 2012, at 4.

<sup>53</sup> In 1960, the Commission adopted General Order (GO) 112, “Governing the Design, Construction, testing, Operation and Maintenance of Gas Gathering, Transmission, and Distribution Piping Systems.” GO 112 established the minimum safety standards for pipeline operators, incorporating in large part the American Society of Mechanical engineers standard B31.1.8, “Standard Code for Gas Transmission and Distribution Piping Systems.” Over the years, GO 112 was revised to incorporate federal safety standards. Following the passage of Federal pipeline safety regulations in 1970, GO 112 was modified to “automatically incorporate all revisions to the Federal Pipeline Safety Regulations, 49 C.F.R. Parts 190, 191, 192, 193 and 199 with the effective date being the date of the final order as published in the Federal Register.” (GO 112-E § 104.)

in class location actually occurred, the violations identified by CPSD could have persisted for a significant period of time.<sup>54</sup>

## **7.2. Discussion**

As discussed above, the number of violations range from over 15 million (as alleged by CPSD) to 1 (as proposed by PG&E). Regardless of how the violations are counted, the facts remain the same:

1. PG&E misclassified 173 miles of its transmission pipeline system, in some instances by more than 1 class.
2. PG&E failed to patrol and conduct continuing surveillance of its transmission pipeline system.
3. PG&E failed to comply with its own rules and procedures for classifying its transmission pipeline system.
4. PG&E operated pipelines at MAOP that was not commensurate with their class location and, possibly, their specifications.
5. PG&E's Geographic Information System (GIS) contained erroneous pipeline specification information for multiple segments of pipeline.
6. Many of the errors in class location designation occurred many years ago. Indeed, approximately 25% of the errors occurred prior to 1980.<sup>55</sup>

As PG&E notes, we have on prior occasion determined that it is more appropriate to categorize violations, rather than count them individually, due to the large number or complexity of the violations. However, our decision to do so occurred at the time we considered the appropriate penalties to be imposed for

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<sup>54</sup> CCSF Opening Brief at 11.

<sup>55</sup> PG&E Initial Response at 4, 16; Pacific Gas and Electric Company's Second Update to Response to Order Instituting Investigation, filed April 2, 2012, at 5.

the violations.<sup>56</sup> This decision does not address the penalties to be imposed. That determination, which will be made in a separate decision, will take into consideration “the financial resources of the utility, the severity of the offense, the conduct of the utility to prevent, detect, disclose and rectify the violation and the totality of the circumstances.”<sup>57</sup> Our finding of the number of violations here will reflect the severity of the offense, one of the factors we will consider when determining the appropriate penalty.

We do not believe PG&E’s proposal to characterize the alleged violations solely as a breakdown in PG&E’s ability to effectively implement its patrol, class location and continuing surveillance process to be appropriate. The federal regulations impose specific requirements based on population density and class location. A pipeline segment’s class location determines, among other things, % SMYS limits (49 C.F.R. § 192.611), the frequency of patrols (49 C.F.R. § 192.705) and record retention periods (49 C.F.R. § 192.709). Additionally, as CPSD notes, the continuing surveillance requirement under 49 C.F.R. § 192.613 requires appropriate action be taken concerning not only changes in class location, but also “failure, leakage history, corrosion, substantial changes in cathodic protection requirements, and other unusual operating and maintenance conditions.” Moreover, the federal regulations, as well as PG&E’s own standards, require that certain actions be taken whenever there is a change in

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<sup>56</sup> See, e.g., *Utility Consumers’ Action Network v. SBC Communications (UCAN)*, (D.08-08-017) 2008 Cal. PUC LEXIS 302 and *Pacific Gas and Electric Company* (D.99-06-080) 1999 Cal PUC LEXIS 430.

<sup>57</sup> D.11-11-001 at 36 (slip op.); see also, Pub. Util. Code § 2104.5.

class location.<sup>58</sup> To categorize these multiple requirements as a single process, as proposed by PG&E, would render specific regulations meaningless and prevent this Commission and other regulatory agencies from identifying specific areas where an operator has failed to comply with federal or state regulations and imposing penalties to deter future violations.

We agree with CPSD and CCSF that violations should be counted on a segment-by-segment basis. As CPSD notes, the regulations refer specifically to “segments” of pipeline. Moreover, PG&E’s Class Location Report identifies misclassifications by segment. We are not persuaded by PG&E’s arguments that violations cannot be counted on a segment-by-segment basis because (1) there is no definition of that term in the federal regulations and (2) segments are not fixed. Regardless of whether the term “segment” is defined in the federal regulations, PG&E has defined this term for purposes of classification and reporting. Once it has established how it has interpreted and implemented the federal regulations, PG&E cannot now argue that its interpretation cannot be used to ensure compliance with the regulations. More importantly, CPSD relied on the information provided in the Class Location Report to determine potential violations. Since PG&E identified these segments, it cannot now argue that there is no violation simply because previously identified segments have changed or no longer exist.

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<sup>58</sup> See, e.g., 49 C.F.R. §§ 192.609 (required study), 192.611 (confirmation or revision of MAOP); Exhibit CPSD-1, Attachment 7 (PG&E’s California Gas Transmission Standard 4127 (Revision 2)).

Based on these considerations, we use the segments identified by PG&E in the Class Location Report, and relied upon by CPSD, as the basis for determining violations.

## **8. Assumed SMYS**

### **8.1. Parties' Positions**

#### **8.1.1. CPSD**

As part of its investigation, CPSD found that 133 of the 224 segments that moved to a higher class designation had an assumed SMYS value above 24,000 psi.<sup>59</sup> CPSD argues that PG&E cannot use an assumed SMYS value above 24,000 psi unless there are traceable, verifiable, and complete specification records or a tensile test record to support the higher assumed SMYS value.<sup>60</sup> First, it notes that the Commission's January 3, 2011 letter directed PG&E to locate traceable, verifiable and complete records related to its natural gas transmission lines for class 3 and class 4 locations and class 1 and class 2 HCAs for those pipelines whose MAOP was not previously established through prior hydrostatic testing.<sup>61</sup> CPSD contends that this requirement is supported by OP #1 of D.11-06-017 which allows for "engineering assumptions for pipeline components lacking complete records" provided that "such assumptions must be clearly identified, based on sound engineering principles, and where ambiguities arise, the assumption allowing the greatest safety margin must be adopted."<sup>62</sup> Based on the language in OP #1, CPSD maintains that the "greatest

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<sup>59</sup> Exhibit CPSD-1 at 50, fn. 85.

<sup>60</sup> CPSD Opening Brief at 12.

<sup>61</sup> CPSD Opening Brief at 13.

<sup>62</sup> CPSD Opening Brief at 13-14.

safety margin” for those pipeline segments without complete records and hydro testing records would be an assumed SMYS value of 24,000 psi.<sup>63</sup>

Next, CPSD contends that in those instances where pipe specifications or tensile strength records are not available, it is not reasonable to impute specifications based on pipe purchased at about the time the unknown pipe segments were installed.<sup>64</sup> CPSD notes, that since PG&E installed salvaged pipe, there was no assurance that the installed pipe would have the same specifications as contemporaneously purchased pipe. Further, CPSD asserts that it is unreasonable to rely on data in PG&E’s Geographic Information System (GIS) since that system contained inaccuracies regarding pipe specifications.<sup>65</sup>

CPSD concedes that “if a company can demonstrate via exhaustive research that they have uncovered every type of pipe purchased that could have been used on the subject installation (this includes new and used pipe of an older vintage), then CPSD would agree that using the lowest quality material procurement specification during the time frames in question would reflect all of the possible pipe that could have been place in service for the specific segments in question.”<sup>66</sup> However,

the evidence demonstrates that PG&E did not fully research all of its records of procurement specifications; thus there cannot be any certainty about what was the lowest quality/strength pipe it bought at any given time. PG&E is, therefore, required to default to the Part 192.107(b) value of

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<sup>63</sup> CPSD Opening Brief at 14.

<sup>64</sup> CPSD Reply Brief at 4.

<sup>65</sup> CPSD Reply Brief at 4.

<sup>66</sup> Exhibit CPSD-4 at 2:25-30.

24,000 psi for the yield strength for unknown pipe yield strength.<sup>67</sup>

CPSD further maintains that regardless of common industry practice, there is an overarching requirement that inferring SMYS values above 24,000 psi requires sufficient records to permit an operator to conclude that it could safely use an assumed value above the maximum specified in 49 C.F.R. § 192.107. Therefore, CPSD contends that PG&E witness Zurcher's testimony regarding the common practices of other pipeline operators to use assumed SMYS values above 24,000 psi "does not relieve PG&E of its burden of establishing what records were used and on which pipe segments."<sup>68</sup> Moreover, CPSD notes that Zurcher's testimony does not address whether using higher assumed SMYS values is approved when applied to segments with "unknown class location designations."<sup>69</sup>

Finally, CPSD asserts that the wording of 49 C.F.R. § 192.107 requires the use of assumed SMYS values no greater than 24,000 psi if the operator does not have the specification records of the pipe segment or has not tensile tested the segment.<sup>70</sup> Consequently, CPSD concludes that in those instances where PG&E inferred a SMYS value above 24,000 psi without sufficient records, PG&E has violated the terms of 49 C.F.R. § 192.107(b)(2).<sup>71</sup>

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<sup>67</sup> Exhibit CPSD-5 at 2:10-14.

<sup>68</sup> CPSD Opening Brief at 14.

<sup>69</sup> *Id.*

<sup>70</sup> *Id.*

<sup>71</sup> CPSD Reply Brief at 4.

### **8.1.2. PG&E**

PG&E disputes CPSD's conclusion that a violation occurs in every instance where an out-of-class pipeline segment has an assumed SMYS value above 24,000 psi. PG&E contends that it uses conservative assumed SMYS values and that any instances where it has used an assumed value above 24,000 psi is appropriate.

As an initial matter, PG&E states that CPSD can only establish a violation by proving for each of the 133 segments that the pipe was not manufactured in accordance with specifications listed in 49 C.F.R. § 192.107(a), that the pipe specifications and tensile properties were unknown and that there were no records to support an assumed SMYS value other than 24,000 psi as required by 49 C.F.R. § 192.107(b)(1).<sup>72</sup> By failing to do so, PG&E asserts CPSD has not met its burden of proof.<sup>73</sup> Further, PG&E disagrees with CPSD's assertion that PG&E has the burden to prove that it has not violated 49 C.F.R. § 192.107(b).

PG&E raises various arguments why 49 C.F.R. § 192.107(b) is not applicable. First, PG&E contends that the design formula specified in 49 C.F.R. § 192.105, and consequently the methodology for determine yield strength specified in 49 C.F.R. § 192.107, would only apply to pipeline segments installed after November 1970. It asserts that pipe installed before that date would have their MAOP set under the "grandfather clause" of 49 C.F.R. § 192.619(c).<sup>74</sup>

Next, PG&E notes that 49 C.F.R. § 192.107(a) provides

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<sup>72</sup> PG&E Opening Brief at 2-3; Reply Brief at 7.

<sup>73</sup> PG&E Opening Brief at 3; PG&E Reply Brief at 7.

<sup>74</sup> PG&E Opening Brief at 3.

For pipe that is manufactured in accordance with a specification listed in section I of appendix B of this part, the yield strength to be used in the design formula in § 192.105 is the SMYS stated in the listed specification, if that value is known.

PG&E states that in those instances where it did not have specific documentation establishing SMYS for a segment of pipeline, it used the lowest SMYS value from material procurement specifications at the time period in which the pipe segment was installed.<sup>75</sup> PG&E contends that this is consistent with common industry practice.<sup>76</sup> PG&E further notes that most of its pipeline was procured in accordance with API 5L specification, which provided for a SMYS value above 24,000 psi. Consequently, PG&E maintains that it could reasonably use an assumed SMYS value above 24,000 psi for certain segments of pipe.

PG&E additionally notes that its methodology for setting assumed SMYS values is supported by D.11-06-017.<sup>77</sup> It notes that OP 1 of that decision states, in relevant part:

Pacific Gas and Electric Company must complete its Maximum Allowable Operating Pressure determination based on pipeline features and may use engineering-based assumptions for pipeline components where complete records are not available. Such assumptions must be clearly identified, based on sound engineering principles, and, where

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<sup>75</sup> PG&E Opening Brief at 4.

<sup>76</sup> PG&E Opening Brief at 3-4; see also, Exhibit PG&E-1 at 2-5 - 2-6 (Zurcher); Reporter's Transcript, Joint Evidentiary Hearing (Joint RT), Vol. 1 at 41:21-25 (PG&E Witness Zurcher, who stated: "If I know the year of manufacture, I know who the manufacturer was and I know what type of pipe they produced, yes, I can make a reasonable assumption [of the SMYS value]."

<sup>77</sup> PG&E Reply Brief at 10.

ambiguities arise, the assumption allowing the greatest safety margin must be adopted.

PG&E argues that applying a “traceable, verifiable and complete records” requirement would prevent the use of “engineering-based assumptions” and effectively delete OP 1.<sup>78</sup>

Finally, PG&E states that the criteria that “traceable, verifiable and complete” records be used to establish MAOP was not in effect until January 3, 2011. As such, PG&E contends that it could not have violated this requirement prior to that date.<sup>79</sup> PG&E further asserts that even if this were an existing requirement, CPSD has failed to demonstrate that PG&E’s use of assumed SMYS values above 24,000 psi is not based on records meeting this standard.<sup>80</sup>

### **8.1.3. CCSF**

CCSF maintains that it would be unreasonable for PG&E to use an assumed SMYS value above 24,000 psi based on information in the GIS system.<sup>81</sup> It contends that since the GIS system does not distinguish between date of manufacture, date of installation for new pipe and date of installation for reconditioned pipe, PG&E could not reasonably conclude that pipe installed at any given time would have the same specifications as pipeline acquired during that same period. CCSF believes this is especially true since PG&E is unable to track all instances where reconditioned pipe was used.<sup>82</sup> Additionally, CCSF

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<sup>78</sup> PG&E Reply Brief at 11.

<sup>79</sup> PG&E Reply Brief at 9-10.

<sup>80</sup> PG&E Reply Brief at 10.

<sup>81</sup> CCSF Opening Brief at 7-8.

<sup>82</sup> CCSF notes that in the 1920s and 1930s, PG&E used A.O. Smith pipe, which did not support SMYS values above 24,000 psig, in its transmission system. Since PG&E does not track the type

*Footnote continued on next page*

notes that PG&E has admitted that 898 segments of its gas transmission pipelines changed in class designation due to errors in key pipeline specifications contained in the GIS system, resulting in the majority of those segments going up in class designation.<sup>83</sup> Moreover, CCSF points out that PG&E does not have the ability to track where it has used reconditioned pipe in its system and that both the NTSB and the Commission have expressed concern over the accuracy and quality of its records.<sup>84</sup> Consequently, CCSF maintains that an assumed SMYS value based on information in the GIS system cannot be considered reliable.

CCSF further discounts PG&E's arguments that pipe lacking complete records documenting SMYS, but installed prior to November 1970, did not require new tensile strength tests or an assumed SMYS value of 24,000 psig. CCSF notes that the federal regulations adopted in November 1970 incorporated the requirements of ASA B.31.1.8.<sup>85</sup> It further argues "Section 192.611 states that when there is a change in class location, the operator must confirm or revise the pipeline's MAOP."<sup>86</sup> Additionally, CCSF contends that a pipeline operator cannot confirm or revise the pipeline's MAOP without first knowing the appropriate SMYS value.

Finally, CCSF contends that no weight should be given to PG&E's arguments that it was common industry practice to infer a conservative SMYS

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of pipe installed, CCSF concludes that PG&E "cannot be sure that pipeline segments installed at later dates are not in fact comprised of older A.O. Smith pipe." (CCSF Opening Brief at 10.)

<sup>83</sup> CCSF Opening Brief at 7-8. CCSF also notes that one of the errors in GIS was an incorrect SMYS value.

<sup>84</sup> CCSF Opening Brief at 7-8.

<sup>85</sup> CCSF Opening Brief at 4-5.

value based on reasonable, conservative assumptions. CCSF first notes that even if other operators were out of compliance with federal regulations, this did not excuse PG&E from compliance.<sup>87</sup> Moreover, CCSF states:

The degree of conservatism in any assumption is largely dependent upon the operator's maintenance and operational practices. In other words, an operator must have some foundation upon which it can make a conservative assumption.<sup>88</sup>

## **8.2. Discussion**

There is no disagreement that reasonable assumptions of SMYS value can be made if there are sufficient records to support the assumed value. Thus, the issue to be considered here is not whether PG&E may use an assumed SMYS value, but rather whether PG&E had sufficient records to support the use of assumed SMYS values above 24,000 psi for the 133 segments that moved to a higher class designation.

Due to the inherently dangerous nature of natural gas, the NTSB has set guidelines to ensure that pipelines are operated in a safe manner. Among other things, the guidelines establish the maximum pressure at which a pipeline can be operated (MAOP) taking into consideration population density (i.e., class location). The MAOP is based on the formula for calculating the design pressure for steel pipe.<sup>89</sup> One of the elements in the design formula, "S", is the SMYS for the steel pipe. The SMYS is set at or lower than the lowest pressure at which the

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<sup>86</sup> Reply Brief of the City and County of San Francisco (CCSF Reply Brief), filed December 5, 2012, at 2.

<sup>87</sup> CCSF Opening Brief at 6.

<sup>88</sup> CCSF Opening Brief at 7.

pipe will experience permanent deformation. SMYS is determined pursuant to 49 C.F.R. § 192.107, which provides:

(a) For pipe that is manufactured in accordance with a specification listed in section I of appendix B of this part, the yield strength to be used in the design formula in § 192.105 is the SMYS stated in the listed specification, if that value is known.

(b) For pipe that is manufactured in accordance with a specification not listed in section I of appendix B to this part or whose specification or tensile properties are unknown, the yield strength to be used in the design formula in § 192.105 is one of the following:

(1) If the pipe is tensile tested in accordance with section II-D of appendix B to this part, the lower of the following:

(i) 80 percent of the average yield strength determined by the tensile tests.

(ii) The lowest yield strength determined by the tensile tests.

(2) If the pipe is not tensile tested as provided in paragraph (b)(1) of this section, 24,000 p.s.i. (165 MPa).

As shown in Table 11 of the CPSD Investigative Report, the higher the SMYS value, the higher the MAOP.<sup>90</sup> The higher the pressure in a pipeline segment, the greater the potential for damage to property and harm to persons in the event the pipeline segment ruptures. Consequently, as established in 49 C.F.R. § 192.611, MAOP is set at a lower %SMYS in class 3 and 4 locations and in HCAs to provide a greater factor of safety.

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<sup>89</sup> See 49 C.F.R. § 192.105.

<sup>90</sup> CPSD Investigative Report at 52.

Under 49 C.F.R. § 192.107, the SMYS value is based on pipeline specifications or tensile tests. Absent such information, the SMYS is set at 24,000 psi. As stated by PG&E witness Zurcher, it is common industry practice to assume conservative specification values in the event pipeline segments have missing specification records. For pipeline with a missing SMYS value, "If I know the year of manufacture, I know who the manufacturer was and I know what type of pipe they produced, yes, I can make a reasonable assumption."<sup>91</sup>

Testimony in this proceeding suggests that pipeline operators will make every effort to not have "unknown" pipeline, as unknown pipe would require the operator to use the most conservative operating values. When questioned regarding when pipe would be considered "unknown," and thus warranting an assumed SMYS value of 24,000 psi, Zurcher responded:

2 Q And truly unknown would be if none  
3 of the three areas, the year manufactured,  
4 the name of the manufacturer, or the type of  
5 pipe, is available, is that truly unknown?

6 A That would be truly unknown, in  
7 addition to the fact that they have no pipe  
8 specification, no material purchase order,  
9 and no as-built drawing or a mill  
10 certification in addition to those things.<sup>92</sup>

As Zurcher further testified, pipeline operators will "attempt to find something to legitimize the assumed value they are going to use."<sup>93</sup>

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<sup>91</sup> Joint RT, Vol. 1 at 41:21-25.

<sup>92</sup> Joint RT at 58:2-10.

<sup>93</sup> Joint RT at 57:26-27.

Based on the evidence presented, we are persuaded that, to the extent PG&E has inferred a SMYS value based on the date of installation of the pipe or information in GIS, it has violated 49 C.F.R. § 192.107. Unlike other pipe specification information, the date a pipeline segment is installed does not provide information about the physical characteristics of the pipe. However, PG&E's methodology that equates date of installation of a pipeline segment with the date of manufacture does that. This methodology fails to take into account the fact that the pipeline segment that is installed may be re-used or reconditioned, and thus of a different vintage. In fact, PG&E witness Zurcher's testimony supports a conclusion that PG&E's methodology is not common industry practice.<sup>94</sup>

In addition, PG&E has acknowledged that its GIS system contained erroneous values for certain pipe specifications, including SMYS values. Absent confirmation that the information is correct and supported by other documentation, it would be unreasonable to rely solely on GIS data to "legitimize" an assumed value. Moreover, PG&E has acknowledged that not all of the pipe segments in its transmission system have the same specifications<sup>95</sup> and that it was unable to find written policies to track salvaged or re-used pipe.<sup>96</sup> Furthermore, PG&E appears to have both reconditioned and new gas transmission pipe and gas pipeline rated material in its general inventory.<sup>97</sup> As such, pipeline missing documentation to provide some of the critical information

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<sup>94</sup> See, Joint RT at 58:2-10.

<sup>95</sup> See, e.g., PG&E Opening Brief at 5.

<sup>96</sup> Exh. Joint-3.

<sup>97</sup> Exh. Joint-2 at 2.

needed to calculate SMYS cannot be assumed to have “known” specifications based on the date it was installed or information in GIS. Therefore, we find that absent records that contain specifications of the pipe being installed that would allow a higher assumed SMYS value, PG&E could not assume a SMYS value over 24,000 psi based on date of installation.

We do not believe our determination here is contrary to, or deletes, OP #1 of D.11-06-017. We agree with CPSD that “engineering based assumptions” must be supported by information directly related to the physical specifications of the pipeline, such as date of manufacture.

We disagree with PG&E’s assertion that the requirement for “traceable verifiable and complete records” was only in effect after January 3, 2011. PG&E witness Zurcher testified that pipeline operators would look for “something to legitimize the assumed value” and provided various examples of documents that could be used to support a higher SMYS value. The documents he identified – pipe specification, material purchase order, as-built drawings and mill certifications – pertain to the manufacture or testing of the pipeline and would all be considered traceable and verifiable. The requirement that pipeline operators have this type of documentation is not new and, to the extent that PG&E did not have these types of documents to support an assumed SMYS value above 24,000 psi is a violation. As noted above, the installation date does not reflect whether the pipe segment is new or reconditioned pipe at the time of installation or any information on the pipe characteristics (e.g., date of manufacture or seam type). Moreover, as acknowledged by PG&E, 140 miles of pipeline had incorrect

MAOPs due to errors in GIS.<sup>98</sup> Accordingly, we find that PG&E's reliance on installation date and GIS data, rather than actual documentation relating to the physical specifications of a pipeline, to establish assumed SMYS values to be contrary to the requirements of 49 C.F.R. § 192.107.

We also disagree with PG&E's assertion that CPSD can only establish a violation of 49 C.F.R. § 192.107(b)(2) by proving that each of the 133 pipeline segments having an assumed SMYS above 24,000 psi that moved to a higher class designation did not meet the requirements of 49 C.F.R. § 192.107(a) or (b)(1). PG&E has a legal requirement to maintain various documents, including documents pertaining to design, operation, and maintenance, for its pipeline system. While CPSD bears the burden of proving a violation, it cannot do so given the state of PG&E's current records. As CPSD notes, PG&E has missing records in job files and inaccuracies in GIS. Given that PG&E is responsible for maintaining records to demonstrate that it is operating and maintaining its pipeline system in a safe manner, it would be unreasonable to conclude that CPSD has not met its burden of proof because it could not present documents demonstrating PG&E's non-compliance with 49 C.F.R. § 192.107(a) or (b)(1). Thus, we believe that the doctrine of spoliation of evidence would apply in this instance and that we should draw an adverse inference concerning these 133 segments.<sup>99</sup>

Accordingly, we infer that every instance where there is an assumed SMYS value above 24,000 psi is a violation of 49 C.F.R. § 192.107. PG&E may rebut this

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<sup>98</sup> PG&E Initial Response at 2.

<sup>99</sup> See, e.g., *Reeves v. MV Transportation* (2010) 186 Cal. App. 4th 666, *Cedars-Sinai Medical Center v. Superior Court* (1998) 18 Cal. 4th 1.

inference by providing documentation demonstrating that the pipeline segment in question either was manufactured in accordance with a specification listed in section I of appendix B of 49 C.F.R. § 192<sup>100</sup> or has been tensile tested<sup>101</sup> to support the higher assumed SMYS value.

## **9. Section 451**

CPSD contends that by operating transmission pipeline segments at an MAOP above those permitted under federal regulations, PG&E “irrefutably risks potential rupture, explosion, and fire.”<sup>102</sup> Consequently, it asserts that the 133 pipeline segments with assumed SMYS values above 24,000 psi<sup>103</sup> and the 63 pipeline segments with MAOP exceeding hoop stress limits<sup>104</sup> violated Pub. Util. Code § 451.<sup>105</sup>

PG&E contends that Pub. Util. Code § 451 cannot support the alleged violations on various grounds. First, it notes that while CPSD alleges a violation of 49 C.F.R. § 192.107, it also concedes that the resulting excessive MAOPs were not above the allowable maximums under federal regulations. Thus, PG&E asserts that CPSD cannot apply Pub. Util. Code § 451 “to create a violation for conduct that is expressly allowed” by federal regulation.<sup>106</sup> Additionally, PG&E

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<sup>100</sup> 49 C.F.R. § 192.107(a).

<sup>101</sup> 49 C.F.R. § 192.107(b)(1).

<sup>102</sup> CPSD Opening Brief at 15.

<sup>103</sup> Violation of 49 C.F.R. § 192.107(b)(1).

<sup>104</sup> Violation of 49 C.F.R. § 192.619. Hoop stress is defined in ASME B.31.8, Section 805.32 as “the stress in a pipe wall, acting circumferentially in a plane perpendicular to the longitudinal axis of the pipe and produced by the pressure of the fluid in the pipe.” In other words, hoop stress is the internal pressure of the natural gas pushing against the circumference of the pipe.

<sup>105</sup> See, CPSD’s Investigative Report at 55.

<sup>106</sup> PG&E Reply Brief at 11-12.

states that Pub. Util. Code § 451 concerns rates, not pipeline safety. PG&E argues that interpreting Pub. Util. Code § 451 as a “free-floating source of pipeline safety rules” would render other code sections and regulations superfluous.<sup>107</sup> Further, PG&E raises a due process argument, arguing that the Commission and CPSD had never put PG&E on notice of the safety requirements contained in Pub. Util. Code § 451.

We find PG&E’s arguments to be without merit. With respect to its first argument, PG&E appears to believe that even if it used an assumed SMYS value higher than permissible under 49 C.F.R. § 192.107, there would not be a violation of Pub. Util. Code § 451 because the resulting MAOP was still below the allowable maximum under the federal regulations. This argument, however, assumes that there are no risks associated with operating a pipeline segment at a higher MAOP. That is simply not correct. As CPSD notes, inappropriately high MAOPs “increase the risk to areas with higher population density and reduce the pipeline’s margin of safety.”<sup>108</sup> This is true even if the inappropriately high MAOPs are not above allowable maximums under federal regulations.<sup>109</sup> As a pipeline operator, PG&E was well aware that operating a pipeline segment at a higher MAOP than permissible for the pipeline segment would reduce the safety margin in areas with higher population density and locations designated as HCA, even if the MAOP is not above the allowable maximums under federal regulations. Therefore, PG&E’s argument that it has not violated Pub. Util.

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<sup>107</sup> PG&E Reply Brief at 12.

<sup>108</sup> CPSD’s Investigative Report at 55.

<sup>109</sup> As an analogy, it is unsafe to drive a car at 55 miles per hour (mph) if its tires are rated for speeds not to exceed 50 mph, even when the speed limit for the road is 60 mph.

Code § 451 because it operated those pipeline segments below allowable maximums under federal regulations is without merit.

PG&E's assertion that Section 451 is a ratemaking provision that cannot serve as a "free-floating" source of pipeline safety requirements is equally unavailing. Section 451 provides, in relevant part:

Every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities ... as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public.

Under PG&E's interpretation, Section 451 requires a balancing of various factors to determine whether a utility has provided the proper level of service in exchange for the rates it receives from ratepayers. However, even if that were the case, there is nothing to suggest that safety is not an absolute duty under Section 451. Indeed, Chapter 3 of the Public Utilities Code, where Section 451 resides, is entitled "Rights and Obligations of Public Utilities." Thus, it is entirely consistent to find a safety obligation in this Chapter, as well as more specific safety-related requirements in other parts. The fact that the safety obligation appears in an article entitled "Rates" does not diminish the significance of that obligation.

We also disagree that interpreting Section 451 as including an overarching safety obligation would render other code sections and regulations superfluous. For example, when the Commission adopted GO 112, it recognized that utilities had a pre-existing and continuing responsibility to the public to provide safe service that goes beyond GO 112 because no code of safety rules can cover every conceivable situation:

7. Public utilities serving or transmitting gas bear a great responsibility to the public respecting the safety of their facilities and operating practices.

8. It is recognized that no code of safety rules, no matter how carefully and well prepared can be relied upon to guarantee complete freedom from accidents. Moreover, the promulgation of precautionary safety rules does not remove or minimize the primary obligation and responsibility of respondents to provide safe service and facilities in their gas operations. Officers and employees of the respondents must continue to be ever conscious of the importance of safe operating practices and facilities and of their obligation to the public in that respect.<sup>110</sup>

Moreover, GO 112 makes clear that Section 451 applies separately and independently of the new rules by specifying in Section 104.4 that “[c]ompliance with these rules is not intended to relieve a utility from any statutory requirement.” The Commission clearly intended that the new rules would be complementary to the utilities’ primary safety obligation and not redundant. This intent was most recently reaffirmed in D.12-12-030, where the Commission explained the relationship between the Section 451 obligation and other regulations as follows:

We require our natural gas transmission system operators to exercise initiative and responsible safety engineering in all aspects of pipeline management. Simply because a regulation would not prohibit particular conduct does not excuse a natural gas system operator from recognizing that such conduct is not appropriate or safe under certain circumstances.<sup>111</sup>

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<sup>110</sup> D.61269 at 431 (1960); 58 CPUC 413, 420.

<sup>111</sup> D.12-12-030 at 95.

Finally, we reject PG&E's contention that it was denied due process because it did not have fair notice of the safety requirements subject to Section 451. The OII put PG&E on notice that failure to comply with federal safety regulations for the operation of its natural gas transmission pipeline system may establish a failure to provide "safe, healthful, comfortable, and convenient natural gas transmission service, instrumentalities, equipment, and facilities" and, thus, constitute a violation of Section 451.<sup>112</sup> The OII also included examples of what would constitute violations of Section 451.

PG&E also relies on *F.C.C. v. Fox TV Stations, Inc.* (2012) 132 S. Ct. 2307, for the proposition that it was not provided fair notice because the alleged violations under § 451 were vague or applied in an arbitrary or discriminatory way. We disagree. As a pipeline operator, PG&E should be well aware that the higher the MAOP, the greater the potential risk of injury to persons and damage to property in the event of a rupture. Indeed, even a person of ordinary intelligence (the standard articulated in *Fox TV*) would realize that inappropriately high operating pressures would present safety concerns.

We also do not find CPSD's allegations to be arbitrary or discriminatory. CPSD identifies the specific incidents that constitute violations of § 451 and explains the basis for its allegations. Additionally, CPSD's engineers are qualified, licensed, expert engineers, qualified to form expert opinions about pipeline safety. It is appropriate for CPSD's engineers to have opinions about what constitutes a safe practice, and these opinions are grounded in the standards of the pipeline industry and established regulations.

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<sup>112</sup> OII at 11.

For the reasons discussed above, we find that, in addition to violating 49 C.F.R. § 192.107 and § 192.619, the 133 pipeline segments with assumed SMYS values above 24,000 psi and the 63 pipeline segments with MAOP exceeding hoop stress limits also violated Pub. Util. Code § 451. These violations are separate and distinct from the violations of the federal regulations and should be counted as such.<sup>113</sup>

## **10. Summary of Violations**

In determining the number of violations, Pub. Util. Code § 2108 states that for a continuing violation, each day would be considered a separate and distinct offense. CPSD contends that all of its alleged violations are continuing violations. We agree.

Under 49 C.F.R. § 192, PG&E is required to regularly review and study changes in population density that would affect the design, construction, maintenance, and operation of its natural gas transmission pipeline system. Further, PG&E is required to maintain records that demonstrate that it has properly reviewed and tested the physical condition of its pipeline system. Based on the requirement to regularly patrol its natural gas pipeline system,<sup>114</sup> PG&E should have determined the need to update the class designation of its pipeline segments in response to changes in population density. This would have, in turn, required PG&E to confirm or revise the MAOP of the affected pipeline segment. As a result of PG&E's failure to comply with the requirement for regular patrolling, it did not identify the need to update the class locations

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<sup>113</sup> See, e.g., *Pacific Bell Wireless, LLC v. Public Utilities Com.* (2006) 140 Cal. App. 4th 718, 743.

<sup>114</sup> 49 C.F.R. § 192.709.

over a significant period of time. Such a failure would constitute a continuing offense.

CPSD provides its calculations of the number of days in violation for each violation in Attachments 11 – 16 of the Investigative Report.<sup>115</sup> These attachments identify the specific segments in violation, as well as the start date for the violation. These start dates are based on available information in PG&E's records and data responses. Where there was no information available to establish the start date, CPSD estimated the start date as July 1 of the applicable year. As discussed above, the status of PG&E's records makes it difficult, if not impossible, to determine accurately the start date of the violations for each segment. However, as part of its review of the cause for changes in class location, Wilbros determined the most likely year of change for those segments that increased in class designation due to errors.<sup>116</sup> Thus, where a specific start date is not known, we find CPSD's estimated mid-year start date to be reasonable.

Although not specifically stated, it appears that CPSD assumes all violations ended on June 30, 2011, the date PG&E submitted the Class Location Report.<sup>117</sup> We do not find this end date to be reasonable, as there is no evidence to conclude that these violations had been cured by the time the report was submitted. PG&E's January 17, 2012 response to the OII notes that many of the

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<sup>115</sup> Exh. CPSD-1.

<sup>116</sup> *Pacific Gas and Electric Company's Response to Order Instituting Investigation (PG&E January 17 Response)*, filed January 17, 2012, at 16; *Pacific Gas and Electric Company's Second Update to Response to Order Instituting Investigation (PG&E April 2 Response)*, filed April 2, 2012, at 5.

<sup>117</sup> This assumption is based on adding the number of days (6,548) to July 26, 1993. (See, e.g., Exh. CPSD-1, Attachment 11.)

errors identified in the Class Location Report had been corrected after June 30, 2011.<sup>118</sup> PG&E further stated that it had not yet completed review of all short pieces of pipe coming off a main line to determine whether they had the proper class designation.<sup>119</sup> PG&E filed two updates to its January 17 response, which demonstrate that the majority of the violations have either been cured or will be cured in a short period of time.<sup>120</sup> Based on the information contained in these three responses, we find that the appropriate end date for the violations should be set as January 17, 2012, as at that time, PG&E had cured many of the violations identified in the Class Location Report and had set in place actions to be taken to address those violations yet to be cured.

CPSD separates the number of days in violation as occurring either before or after July 26, 1993, but does not explain the significance of that date. We suspect that this date may be associated with the date Senate Bill (SB) 485 (Stats. 1993, ch. 222) was signed. This bill increased the maximum penalty under Pub. Util. Code § 2107 from \$2,000 to \$20,000 per violation. However, SB 485 was not an urgency bill, so the change in maximum penalty became effective on January 1, 1994. While this proceeding only determines the number of violations, the date of the violation occurred will be relevant at the time we consider penalties. Therefore, we have separated the number of days in violation as occurring either before January 1, 1994, or on or after January 1, 1994.

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<sup>118</sup> *PG&E January 17 Response* at 2 & 12 - 14.

<sup>119</sup> *PG&E January 17 Response* at 14 - 15.

<sup>120</sup> *Pacific Gas and Electric Company's Update to Response to Order Instituting Investigation*, filed February 2, 2012, at 2; *PG&E April 2 Response* at 6 - 7.

Based on our findings in this Decision and our discussion above, we find that PG&E committed 3,643 violations that continued for years, for a total of 18,038,359 days in violation. The *Table of Violations and Offenses* set forth in Appendix B compiles the violations we have determined in the foregoing discussion. Pursuant to Section 2108, each day's continuance of a violation is a separate and distinct offense. Accordingly, for each violation, the table indicates the date when the violation began. As discussed above, we set January 17, 2012 as the end date for determining the total number of offenses committed by PG&E.

#### **11. Confirmation of Rulings**

As expected from a proceeding of this complexity and high level of contention, parties have made numerous requests and filed a large number of motions. The assigned ALJ has issued filed, electronic and oral rulings in response to these motions. This decision confirms all rulings. With the exception of the January 17, 2014 motion filed by the City of San Bruno, all outstanding motions that have not yet been ruled on are hereby denied. Due to seriousness of the allegations raised by the City of San Bruno in its motion, the assigned ALJ shall determine whether further action is warranted.

#### **12. Assignment of Proceeding**

Michel Peter Florio is the assigned Commissioner and Amy C. Yip-Kikugawa is the assigned ALJ in this proceeding.

#### **Findings of Fact**

1. Ordering Paragraph 18 of Resolution L-403 directed PG&E to "review the classification of its natural gas transmission pipelines and determine if those classifications have changed since the initial designation."

2. Ordering Paragraph 19 of Resolution L-403 directed PG&E to “report the results of its review of the classification of its natural gas transmission lines and any subsequent changes to those classifications since PG&E’s initial designation to the Executive Director within 10 days of the date of this Resolution.”

3. In PG&E’s October 4, 2010 letter to the Commission in response to Resolution L-403, PG&E identified 1,057 miles of pipeline operating at pressures greater than 60 psig where the current classification is different from the initial classification.

4. The NTSB’s Safety Recommendation P-10-2 and -3 (Urgent) and P-10-4 directed PG&E to use “traceable, verifiable, and complete” records to confirm that the MAOP in class 3 and class 4 locations and class 1 and class 2 locations in HCAs were properly established.

5. PG&E’s Class Location Report, provided on June 30, 2011 determined that approximately 550 miles of PG&E’s transmission pipeline system had an incorrect class location designation.

6. CPSD submitted its Investigative Report on May 25, 2012.

7. In an Administrative Law Judge’s Ruling issued on September 25, 2012, the issue of penalties resulting from any violations found in this Decision would be considered and addressed in coordination with I.11-02-016 and I.12-01-007.

8. PG&E does not dispute the facts presented by CPSD and has acknowledged that it has not maintained nor operated all segments of its transmission pipeline system at the proper class location.

9. PG&E acknowledges that it is responsible for maintaining complete, up-to-date class locations for its entire gas transmission system.

10. As a result of PG&E's failure to comply with the requirement of regular patrolling, it did not identify the need to update the class locations over a significant period of time.

11. Title 49 C.F.R. § 192 specifically refers to segments of pipeline.

12. The number of violations is related to our determination of the severity of an offense.

13. PG&E's Class Location Report identifies misclassification by segment of pipeline.

14. PG&E has a definition of "segment" for purposes of classification of pipeline segments and reporting.

15. The MAOP for a pipeline segment takes into consideration population density.

16. SMYS is one of the elements in the design formula used to calculate MAOP.

17. The SMYS is set at or lower than the pressure at which the pipe will experience permanent deformation.

18. The higher the SMYS value, the higher the MAOP and the greater the potential for damage to property and harm to persons in the event the pipeline segment ruptures.

19. 40 C.F.R. § 192.107 establishes the methodology for determining SMYS.

20. Where PG&E does not have documentation on the SMYS value of a pipe segment, it has inferred the SMYS value based on the date of installation of the pipe or information in GIS.

21. Pipeline operators will make every effort to not have "unknown" pipeline, as that would require the operator to use the most conservative operating values.

22. PG&E utilizes reconditioned pipe in its transmission pipeline system.

23. PG&E does not track a pipe's manufacture date in GIS.

24. PG&E's GIS system contained erroneous pipeline specification information, including MAOP, for multiple segments of pipeline.

25. D.11-06-017 allows PG&E to use engineering-based assumptions for pipeline components where complete records are not available.

26. PG&E has a legal requirement to maintain various documents on its pipeline system, including documents pertaining to design, operation, and maintenance.

27. Pursuant to Pub. Util. Code § 451, every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities, as necessary to promote safety, health, comfort, and convenience of its patrons, employees, and the public.

28. Chapter 3 of the Pub. Util. Code § 451 resides, is entitled "Rights and Obligations of Public Utilities."

29. The OII put PG&E on notice that failure to comply with federal safety regulations for the operation of its natural gas transmission pipeline system may establish a failure to provide "safe, healthy, comfortable, and convenient natural gas transmission services, instrumentalities, equipment, and facilities" and, thus, constitute a violation of Pub. Util. Code § 451.

30. SB 485 increased the maximum penalty under Pub. Util. Code § 2107 from \$2,000 to \$20,000 per offense effective January 1, 1994.

31. There is no evidence to conclude that PG&E had cured the violations alleged in the CPSD Investigative Report at the time PG&E had submitted the Class Location Report on June 30, 2011.

32. PG&E's January 17, 2012 response to the OII notes that many of the errors identified in the Class Location Report had been corrected after June 30, 2011.

### **Conclusions of Law**

1. The standard of proof in Commission investigation proceedings is by a preponderance of the evidence.

2. PG&E's acknowledgement that it has not operated all segments of its gas transmission pipeline system at the proper class location should be considered an admission of non-compliance.

3. Based on PG&E's acknowledgement that it is responsible for maintaining complete, up-to-date class locations for its entire gas transmission system, and that that it has failed to do so, PG&E violated its own internal rules by failing to identify 843 segments with increased population density. This constitutes a violation of 49 CFR §192.13(c).

4. Based on PG&E's acknowledgement that it is responsible for maintaining complete, up-to-date class locations for its entire gas transmission system, and that that it has failed to do so, PG&E failed to identify changes in population density and misclassified 224 pipeline segments. As a result, PG&E failed to conduct a study to determine the actual class location of these pipeline segments in violation of 49 C.F.R. § 192.609.

5. Due to misclassification of 224 pipeline segments, PG&E did not confirm or revise the MAOP of segments with changed class designations within 24 months of the change in class location. This failure is a violation of 49 C.F.R. § 192.611.

6. Based on PG&E's acknowledgement that it is responsible for maintaining complete, up-to-date class locations for its entire gas transmission system, and that that it has failed to do so, PG&E violated 49 C.F.R. § 192.613 by not having a procedure for continuing surveillance of its facilities to determine and take

appropriate action concerning, among other things, changes in class location, for 677 segments.

7. Based on PG&E's acknowledgement that it is responsible for maintaining complete, up-to-date class locations for its entire gas transmission system, and that that it has failed to do so, PG&E violated 49 C.F.R. § 192.619 by operating 63 pipe segments at pressures greater than allowed for the current class location.

8. PG&E's definition of the term "segment" for classification and reporting purposes should be used to identify violations of federal and state statutes and regulations.

9. It is not reasonable to consider violations of multiple statutory requirements as a single process, as that would prevent the Commission and other regulatory agencies from identifying specific areas where it has failed to comply with regulations.

10. Because PG&E uses reconditioned pipe in its pipeline system, it is unreasonable to equate installation date as manufacture date for purposes of establishing assumed SMYS values.

11. Determining MAOP through engineering-based assumptions cannot be accomplished without some information regarding the physical specifications of the pipeline segment.

12. It would be a violation of 49 C.F.R. § 192.107 to assume a SMYS value above 24,000 psi unless it is supported by documents containing pipeline specifications or tensile test results.

13. Since PG&E is responsible for creating and maintaining pipeline design, maintenance, operation and testing documents, it would be reasonable to draw a negative inference that PG&E has violated 49 C.F.R. § 192.107 if it has used an assumed value of more than 24,000 psi without the required documents.

14. It would be reasonable to draw a negative inference against PG&E concerning its use of assumed SMYS values above 24,000 psi for the 133 segments that moved to a higher class designation.

15. The requirement for “traceable, verifiable and complete records” is not a new requirement.

16. PG&E violated 49 C.F.R. § 192.107 by using an assumed SMYS value above 24,000 psi for 133 segments of pipe that moved to a higher class designation when those segments did not have sufficient known pipe attributes to support an assumed value over 24,000 psi.

17. Pub. Util. Code § 451 imposes a separate and distinct obligation on pipeline operators to operate their pipelines safely.

18. By operating 63 pipe segments at pressures greater than allowed for the current class designation and 133 segments with an assumed SMYS value above 24,000 psi, PG&E subjected pipelines to higher stresses and lower safety margins than allowed by federal and state safety regulations. PG&E’s operation of these pipeline segments at excessive MAOPs constitute unsafe operations and is a violation of Pub. Util. Code § 451.

19. All violations found in this decision should be considered continuing violations.

20. The termination date of the violations should be January 17, 2012, as by that date, PG&E had cured many of the violations identified in the Class Location Report and had set in place actions to be taken to address those violations yet to be cured.

**O R D E R**

**IT IS ORDERED** that:

1. Pacific Gas and Electric Company has violated Pub. Util. Code § 451 and regulations set forth in Title 49 of the Code of Federal Regulations § 192 for failing to maintain and operate all segments of its natural gas transmission pipeline system at the proper class location. The fines and remedies to be imposed as a result of the violations found in this decision shall be considered in coordination with Investigations 11-02-016 and 12-01-007.

2. Investigation 11-11-009 remains open.

This order is effective today.

Dated \_\_\_\_\_, at San Francisco, California.

**APPENDIX A**

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(END OF APPENDIX A)

# **APPENDIX B**

## **Table of Violations and Offenses**

**APPENDIX B**  
**Table of Violations and Offenses, OII 11-11-009**  
**Summary**

| <b>Violation (abbreviated description; see applicable conclusion of law for full statement of violation)</b> | <b>Number of Segments (Violations)</b> | <b>Pre-1/01/1994 Days in Violation</b> | <b>Post-1/01/1994 Days in Violation*</b> | <b>Total Days in Violation</b> |
|--|--|--|--|--------------------------------|
| 49 C.F.R. § 192.107 (b) (Assumed SMYS Values)  | 133                                    | 451,890                                | 766,482                                  | 1,218,372                      |
| P.U. Code § 451 (Assumed SMYS Values Resulting in Excessive MAOPs)   | 133                                    | 451,890                                | 766,482                                  | 1,218,372                      |
| 49 C.F.R. § 192.13(c) (Not Following Procedures)   | 843                                    | 2,107,255                              | 4,162,027                                | 6,269,282                      |
| 49 C.F.R. § 192.609 (Required Study)   | 224                                    | 542,030                                | 1,095,373                                | 1,637,403                      |
| 49 C.F.R. § 192.611 (MAOP Confirmation/Revision)   | 224                                    | 542,030                                | 1,095,373                                | 1,637,403                      |
| 49 C.F.R. § 192.613 (Continuing Surveillance)  | 677                                    | 1,723,956                              | 3,346,447                                | 5,070,403                      |
| 49 C.F.R. § 192.619 (Non-Commensurate SMYS)  | 63                                     | 154,734                                | 338,828                                  | 493,562                        |
| P.U. Code § 451 (Non-Commensurate SMYS)  | 63                                     | 154,734                                | 338,828                                  | 493,562                        |
| <b>TOTAL</b>   | <b>3,643</b>                           | <b>6,128,519</b>                       | <b>11,909,840</b>                        | <b>18,038,359</b>              |

\*End Date January 17, 2012

Table of Violations and Offenses

| Summary of 49 CFR §192.107 (b) / P.U. Code 451 Violations |                |                      |                                |                                 |
|---|----------------|----------------------|--------------------------------|---------------------------------|
| Route   | Segment Number | Violation Start Date | Pre-1/1/1994 Days in Violation | Post-1/1/1994 Days in Violation |
| DRIP8609  | 100            | April 27, 2010       | 0                              | 630                             |
| 1020-01   | 102.5          | April 20, 2010       | 0                              | 637                             |
| 1027-01   | 106            | April 7, 2010        | 0                              | 650                             |
| DREG5459  | 122            | September 25, 2007   | 0                              | 1,575                           |
| 7222-01   | 155.17         | June 5, 2007         | 0                              | 1,687                           |
| BD28  | 115            | November 5, 2005     | 0                              | 2,264                           |
| BD28  | 120            | November 5, 2005     | 0                              | 2,264                           |
| 7221-10   | 115.3          | July 1, 2005         | 0                              | 2,391                           |
| BD464   | 216.3          | July 1, 2005         | 0                              | 2,391                           |
| BD9431  | 102            | July 15, 2004        | 0                              | 2,742                           |
| BD9433  | 101            | July 15, 2004        | 0                              | 2,742                           |
| DREG4907  | 302            | July 1, 2004         | 0                              | 2,756                           |
| BD644   | 101            | July 23, 2003        | 0                              | 3,100                           |
| BD644   | 102            | July 23, 2003        | 0                              | 3,100                           |
| BD464   | 251.4          | May 18, 2003         | 0                              | 3,166                           |
| BD464   | 251.5          | May 18, 2003         | 0                              | 3,166                           |
| BD443   | 606            | October 25, 2002     | 0                              | 3,371                           |
| DREG5442  | 101            | July 2, 2002         | 0                              | 3,486                           |
| 1519-01-110   | 110            | May 8, 2002          | 0                              | 3,541                           |
| 1519-01-110.3   | 110.3          | May 8, 2002          | 0                              | 3,541                           |
| 197C-2  | 323            | November 16, 2000    | 0                              | 4,079                           |
| 0405-01   | 116.65         | April 19, 2000       | 0                              | 4,290                           |
| 303   | 131.9          | January 12, 2000     | 0                              | 4,388                           |
| 303   | 131.8          | January 12, 2000     | 0                              | 4,388                           |
| 7211-02   | 101            | January 7, 1999      | 0                              | 4,758                           |
| BD669-601   | 601            | November 14, 1997    | 0                              | 5,177                           |
| BD7066-602  | 602            | November 14, 1997    | 0                              | 5,177                           |
| BD9430  | 602            | April 20, 1997       | 0                              | 5,385                           |
| BD359   | 501            | April 20, 1997       | 0                              | 5,385                           |
| 7222-01   | 155.17         | February 25, 1997    | 0                              | 5,439                           |
| 7222-01   | 163.3          | December 11, 1996    | 0                              | 5,515                           |
| 7222-01   | 163.2          | December 11, 1996    | 0                              | 5,515                           |
| 1502-11   | 106.3          | July 1, 1996         | 0                              | 5,678                           |
| 1816-15   | 323            | May 22, 1996         | 0                              | 5,718                           |
| 1816-15   | 325            | May 22, 1996         | 0                              | 5,718                           |
| 1816-15   | 327            | May 22, 1996         | 0                              | 5,718                           |
| 1816-15   | 330            | May 22, 1996         | 0                              | 5,718                           |
| 0405-01   | 117.5          | December 2, 1995     | 0                              | 5,890                           |
| 7226-01   | 101.3          | August 24, 1995      | 0                              | 5,990                           |
| 7226-02   | 101.4          | August 24, 1995      | 0                              | 5,990                           |
| 7208-01   | 106            | July 2, 1995         | 0                              | 6,043                           |
| GCUST5885   | 103            | June 30, 1995        | 0                              | 6,045                           |
| 2408-01   | 238            | September 26, 1994   | 0                              | 6,322                           |
| 1004-01   | 116            | May 25, 1994         | 0                              | 6,446                           |
| BD626   | 952            | July 1, 1993         | 183                            | 6,590                           |
| BD626   | 954            | July 1, 1993         | 183                            | 6,590                           |
| BD627   | 944            | July 1, 1993         | 183                            | 6,590                           |
| 197C-2  | 318            | July 1, 1993         | 183                            | 6,590                           |
| 7222-01   | 165            | March 10, 1993       | 296                            | 6,590                           |
| DRIP7997  | 651            | October 20, 1992     | 437                            | 6,590                           |
| 0630-01   | 123            | August 22, 1992      | 496                            | 6,590                           |
| BD196   | 112            | July 14, 1992        | 535                            | 6,590                           |
| 1213-01   | 306            | July 1, 1992         | 548                            | 6,590                           |
| GCUST5823   | 401            | July 1, 1992         | 548                            | 6,590                           |
| 7227-01   | 101.13         | July 1, 1989         | 1644                           | 6,590                           |
| 6614-03   | 101            | July 1, 1989         | 1644                           | 6,590                           |
| GCUST5939   | 400.3          | July 1, 1989         | 1644                           | 6,590                           |
| GCUST5939   | 401.3          | July 1, 1989         | 1644                           | 6,590                           |
| BD643   | 352            | February 11, 1989    | 1784                           | 6,590                           |
| BD643   | 356            | February 11, 1989    | 1784                           | 6,590                           |
| 1222-01   | 302            | July 1, 1988         | 2009                           | 6,590                           |
| BD400   | 253            | July 1, 1988         | 2009                           | 6,590                           |
| 021E  | 195.5          | May 19, 1988         | 2052                           | 6,590                           |
| 197C-2  | 313            | July 2, 1987         | 2374                           | 6,590                           |
| BD464   | 221.2          | July 2, 1987         | 2374                           | 6,590                           |
| BD549   | 260.2          | July 2, 1987         | 2374                           | 6,590                           |
| BD549   | 261.1          | July 2, 1987         | 2374                           | 6,590                           |
| BD368   | 219            | July 2, 1986         | 2739                           | 6,590                           |
| BD369   | 215            | July 2, 1986         | 2739                           | 6,590                           |
| DFDS8985  | 250.3          | July 2, 1986         | 2739                           | 6,590                           |
| GCUST5766   | 100.3          | June 7, 1986         | 2764                           | 6,590                           |
| 1213-01   | 309            | November 29, 1985    | 2954                           | 6,590                           |
| STUB8475  | 551            | August 24, 1985      | 3051                           | 6,590                           |
| 126A  | 111.2          | July 1, 1985         | 3105                           | 6,590                           |
| BD242   | 101            | July 1, 1985         | 3105                           | 6,590                           |
| BD357   | 100            | July 1, 1985         | 3105                           | 6,590                           |
| DCUST1170   | 201            | July 1, 1984         | 3470                           | 6,590                           |

|             |        |                  |         |         |
|-------------|--------|------------------|---------|---------|
| DCUST1170   | 204    | July 1, 1984     | 3470    | 6,590   |
| DCUST1170   | 207    | July 1, 1984     | 3470    | 6,590   |
| BD299-100.7 | 100.7  | July 22, 1983    | 3815    | 6,590   |
| BD9898      | 601    | October 31, 1981 | 4444    | 6,590   |
| 1502-11     | 104    | July 1, 1981     | 4566    | 6,590   |
| 197C-1      | 214    | July 1, 1981     | 4566    | 6,590   |
| 197C-1      | 214.2  | July 1, 1981     | 4566    | 6,590   |
| GCUST5824   | 401    | July 1, 1981     | 4566    | 6,590   |
| GCUST5824   | 402    | July 1, 1981     | 4566    | 6,590   |
| 197C-2      | 317    | July 1, 1980     | 4931    | 6,590   |
| 1622-01     | 208.2  | May 3, 1978      | 5721    | 6,590   |
| 1816-15     | 323    | July 1, 1977     | 6027    | 6,590   |
| BD602       | 463    | July 1, 1976     | 6392    | 6,590   |
| BD310       | 101    | January 30, 1976 | 6545    | 6,590   |
| BD310       | 102    | January 30, 1976 | 6545    | 6,590   |
| BD690       | 101    | January 30, 1976 | 6545    | 6,590   |
| BD690       | 102    | January 30, 1976 | 6545    | 6,590   |
| BD9473      | 601    | July 1, 1973     | 7488    | 6,590   |
| BD9477      | 601    | July 1, 1973     | 7488    | 6,590   |
| BD501       | 601    | July 1, 1972     | 7853    | 6,590   |
| BD548       | 611    | July 1, 1972     | 7853    | 6,590   |
| BD548       | 612    | July 1, 1972     | 7853    | 6,590   |
| BD7521      | 601    | July 1, 1972     | 7853    | 6,590   |
| BD7522      | 602    | July 1, 1972     | 7853    | 6,590   |
| BD7523      | 603    | July 1, 1972     | 7853    | 6,590   |
| BD7524      | 605    | July 1, 1972     | 7853    | 6,590   |
| 0407-01     | 104    | July 1, 1972     | 7853    | 6,590   |
| 1502-11     | 106    | July 1, 1972     | 7853    | 6,590   |
| 1502-11     | 108    | July 1, 1972     | 7853    | 6,590   |
| 3017-01     | 101.2  | July 1, 1972     | 7853    | 6,590   |
| 186         | 120.1  | July 1, 1972     | 7853    | 6,590   |
| GCUST5912   | 100.3  | July 1, 1972     | 7853    | 6,590   |
| 1502-11     | 102    | July 1, 1972     | 7853    | 6,590   |
| 1502-11     | 103    | July 1, 1972     | 7853    | 6,590   |
| 7223-01     | 101.5  | July 1, 1972     | 7853    | 6,590   |
| GCUST5912   | 100.6  | July 1, 1972     | 7853    | 6,590   |
| GCUST5912   | 102    | July 1, 1972     | 7853    | 6,590   |
| 301 F       | 105.4  | July 1, 1972     | 7853    | 6,590   |
| 6605-01     | 103    | July 1, 1972     | 7853    | 6,590   |
| BD423       | 602    | July 1, 1972     | 7853    | 6,590   |
| BD424       | 601    | July 1, 1972     | 7853    | 6,590   |
| BD464       | 221.1  | July 1, 1972     | 7853    | 6,590   |
| BD190       | 100    | July 1, 1972     | 7853    | 6,590   |
| BD190       | 101    | July 1, 1972     | 7853    | 6,590   |
| STUB8792    | 551    | July 1, 1972     | 7853    | 6,590   |
| STUB8792    | 552    | July 1, 1972     | 7853    | 6,590   |
| X6585       | 501    | July 1, 1972     | 7853    | 6,590   |
| BD691       | 101    | July 1, 1972     | 7853    | 6,590   |
| BD691       | 102    | July 1, 1972     | 7853    | 6,590   |
| 1310-01     | 102.3  | July 1, 1972     | 7853    | 6,590   |
| 1502-08     | 101.2  | July 1, 1972     | 7853    | 6,590   |
| 1502-08     | 101.25 | July 1, 1972     | 7853    | 6,590   |
| 1502-08     | 101.3  | July 1, 1972     | 7853    | 6,590   |
| DCUST1170   | 209    | July 1, 1972     | 7853    | 6,590   |
| DCUST1170   | 211    | July 1, 1972     | 7853    | 6,590   |
| DREG5492    | 100    | July 1, 1972     | 7853    | 6,590   |
|             |        |                  | 451,890 | 766,482 |

Table of Violations and Offenses

| Summary of 49 CFR §192.13c Violations |                |                      |                                |                                 |
|---------------------------------------|----------------|----------------------|--------------------------------|---------------------------------|
| Route                                 | Segment Number | Violation Start Date | Pre-1/1/1994 Days in Violation | Post-1/1/1994 Days in Violation |
| 220                                   | 133.3          | January 1, 1971      | 8,400                          | 6,590                           |
| 300B                                  | 171.6          | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 172            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 171.8          | July 1, 1972         | 7,853                          | 6,590                           |
| 0210-01                               | 111            | July 1, 1972         | 7,853                          | 6,590                           |
| 0210-01                               | 110            | July 1, 1972         | 7,853                          | 6,590                           |
| 021E                                  | 163            | July 1, 1972         | 7,853                          | 6,590                           |
| 021E                                  | 134            | July 1, 1972         | 7,853                          | 6,590                           |
| 0405-01                               | 101.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 0405-01                               | 103            | July 1, 1972         | 7,853                          | 6,590                           |
| 0405-01                               | 118.9          | July 1, 1972         | 7,853                          | 6,590                           |
| 0407-01                               | 104            | July 1, 1972         | 7,853                          | 6,590                           |
| 0407-01                               | 104.2          | July 1, 1972         | 7,853                          | 6,590                           |
| 124A                                  | 121            | July 1, 1972         | 7,853                          | 6,590                           |
| 124B                                  | 113.1          | July 1, 1972         | 7,853                          | 6,590                           |
| 124B                                  | 114            | July 1, 1972         | 7,853                          | 6,590                           |
| 124B                                  | 113.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 126B                                  | 131            | July 1, 1972         | 7,853                          | 6,590                           |
| 147                                   | 103            | July 1, 1972         | 7,853                          | 6,590                           |
| 147                                   | 103.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 147                                   | 103.6          | July 1, 1972         | 7,853                          | 6,590                           |
| 1502-11                               | 106            | July 1, 1972         | 7,853                          | 6,590                           |
| 1502-11                               | 108            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 207            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 212            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 213            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 224.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 247.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 1818-01                               | 145            | July 1, 1972         | 7,853                          | 6,590                           |
| 1818-01                               | 145.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 181B                                  | 106.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 189                                   | 102            | July 1, 1972         | 7,853                          | 6,590                           |
| 191-1                                 | 126.6          | July 1, 1972         | 7,853                          | 6,590                           |
| 210B                                  | 117            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 164.1          | July 1, 1972         | 7,853                          | 6,590                           |
| 3017-01                               | 101.2          | July 1, 1972         | 7,853                          | 6,590                           |
| 307B                                  | 101            | July 1, 1972         | 7,853                          | 6,590                           |
| 105B                                  | 102.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 186                                   | 120.1          | July 1, 1972         | 7,853                          | 6,590                           |
| 186                                   | 120.2          | July 1, 1972         | 7,853                          | 6,590                           |
| 186                                   | 114            | July 1, 1972         | 7,853                          | 6,590                           |
| 220                                   | 141            | July 1, 1972         | 7,853                          | 6,590                           |
| 301B                                  | 103            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 260.15         | July 1, 1972         | 7,853                          | 6,590                           |
| 300A                                  | 166.5          | July 1, 1972         | 7,853                          | 6,590                           |
| GCUST5912                             | 100.3          | July 1, 1972         | 7,853                          | 6,590                           |
| GCUST5912                             | 103.3          | July 1, 1972         | 7,853                          | 6,590                           |
| GCUST5912                             | 103.6          | July 1, 1972         | 7,853                          | 6,590                           |
| 021C                                  | 122            | July 1, 1972         | 7,853                          | 6,590                           |
| 021C                                  | 122.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 021C                                  | 122.9          | July 1, 1972         | 7,853                          | 6,590                           |
| 021C                                  | 123.2          | July 1, 1972         | 7,853                          | 6,590                           |
| 021C                                  | 124.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 021E                                  | 155            | July 1, 1972         | 7,853                          | 6,590                           |
| 103                                   | 127            | July 1, 1972         | 7,853                          | 6,590                           |
| 118A                                  | 213            | July 1, 1972         | 7,853                          | 6,590                           |
| 118A                                  | 214            | July 1, 1972         | 7,853                          | 6,590                           |
| 118A                                  | 229            | July 1, 1972         | 7,853                          | 6,590                           |
| 118A                                  | 179.1          | July 1, 1972         | 7,853                          | 6,590                           |
| 118B                                  | 145            | July 1, 1972         | 7,853                          | 6,590                           |
| 118B                                  | 147.6          | July 1, 1972         | 7,853                          | 6,590                           |
| 118B                                  | 148            | July 1, 1972         | 7,853                          | 6,590                           |
| 126A                                  | 110.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 1310-01                               | 102.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 134A                                  | 138            | July 1, 1972         | 7,853                          | 6,590                           |
| 1502-11                               | 102            | July 1, 1972         | 7,853                          | 6,590                           |
| 1502-11                               | 103            | July 1, 1972         | 7,853                          | 6,590                           |
| 1615-01                               | 119            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 243            | July 1, 1972         | 7,853                          | 6,590                           |

|           |        |              |       |       |
|-----------|--------|--------------|-------|-------|
| 181A      | 106    | July 1, 1972 | 7,853 | 6,590 |
| 181A      | 106.8  | July 1, 1972 | 7,853 | 6,590 |
| 181B      | 113    | July 1, 1972 | 7,853 | 6,590 |
| 300A      | 165.9  | July 1, 1972 | 7,853 | 6,590 |
| 300B      | 180    | July 1, 1972 | 7,853 | 6,590 |
| 300B      | 181    | July 1, 1972 | 7,853 | 6,590 |
| 300B      | 186    | July 1, 1972 | 7,853 | 6,590 |
| 300B      | 186.2  | July 1, 1972 | 7,853 | 6,590 |
| 301A      | 121.3  | July 1, 1972 | 7,853 | 6,590 |
| 301G      | 117.3  | July 1, 1972 | 7,853 | 6,590 |
| 307B      | 103    | July 1, 1972 | 7,853 | 6,590 |
| 7223-01   | 101.5  | July 1, 1972 | 7,853 | 6,590 |
| GCUST5912 | 100.6  | July 1, 1972 | 7,853 | 6,590 |
| GCUST5912 | 102    | July 1, 1972 | 7,853 | 6,590 |
| 167       | 126.2  | July 1, 1972 | 7,853 | 6,590 |
| 300A      | 167.5  | July 1, 1972 | 7,853 | 6,590 |
| 131       | 147    | July 1, 1972 | 7,853 | 6,590 |
| 111A      | 109    | July 1, 1972 | 7,853 | 6,590 |
| 111A      | 109.3  | July 1, 1972 | 7,853 | 6,590 |
| 111A      | 110    | July 1, 1972 | 7,853 | 6,590 |
| 126A      | 106.5  | July 1, 1972 | 7,853 | 6,590 |
| 126B      | 109    | July 1, 1972 | 7,853 | 6,590 |
| 131       | 115.5  | July 1, 1972 | 7,853 | 6,590 |
| 137B      | 102.4  | July 1, 1972 | 7,853 | 6,590 |
| 1502-08   | 101.2  | July 1, 1972 | 7,853 | 6,590 |
| 1502-08   | 101.25 | July 1, 1972 | 7,853 | 6,590 |
| 1502-08   | 101.3  | July 1, 1972 | 7,853 | 6,590 |
| 151       | 106.3  | July 1, 1972 | 7,853 | 6,590 |
| 151       | 106.6  | July 1, 1972 | 7,853 | 6,590 |
| 151       | 107    | July 1, 1972 | 7,853 | 6,590 |
| 177A      | 217    | July 1, 1972 | 7,853 | 6,590 |
| 177A      | 174.8  | July 1, 1972 | 7,853 | 6,590 |
| 177A      | 177    | July 1, 1972 | 7,853 | 6,590 |
| 177A      | 178    | July 1, 1972 | 7,853 | 6,590 |
| 177A      | 178.1  | July 1, 1972 | 7,853 | 6,590 |
| 181B      | 109    | July 1, 1972 | 7,853 | 6,590 |
| 181B      | 109.08 | July 1, 1972 | 7,853 | 6,590 |
| 181B      | 109.1  | July 1, 1972 | 7,853 | 6,590 |
| 187       | 142.3  | July 1, 1972 | 7,853 | 6,590 |
| 187       | 143    | July 1, 1972 | 7,853 | 6,590 |
| 197C      | 111.68 | July 1, 1972 | 7,853 | 6,590 |
| 197C      | 111.75 | July 1, 1972 | 7,853 | 6,590 |
| 197C      | 111.8  | July 1, 1972 | 7,853 | 6,590 |
| 301E      | 105.4  | July 1, 1972 | 7,853 | 6,590 |
| 301E      | 105.6  | July 1, 1972 | 7,853 | 6,590 |
| 301E      | 106    | July 1, 1972 | 7,853 | 6,590 |
| 314       | 119.2  | July 1, 1972 | 7,853 | 6,590 |
| 314       | 119.5  | July 1, 1972 | 7,853 | 6,590 |
| 402       | 109    | July 1, 1972 | 7,853 | 6,590 |
| 402       | 109.9  | July 1, 1972 | 7,853 | 6,590 |
| 6605-01   | 103    | July 1, 1972 | 7,853 | 6,590 |
| BD246     | 100    | July 1, 1972 | 7,853 | 6,590 |
| BD246     | 101    | July 1, 1972 | 7,853 | 6,590 |
| DCUST1170 | 209    | July 1, 1972 | 7,853 | 6,590 |
| DCUST1170 | 211    | July 1, 1972 | 7,853 | 6,590 |
| DEDS6819  | 100    | July 1, 1972 | 7,853 | 6,590 |
| DREG5492  | 100    | July 1, 1972 | 7,853 | 6,590 |
| GCUST5808 | 402    | July 1, 1972 | 7,853 | 6,590 |
| SP4Z      | 112.1  | July 1, 1972 | 7,853 | 6,590 |
| SP4Z      | 112.2  | July 1, 1972 | 7,853 | 6,590 |
| STUB8792  | 551    | July 1, 1972 | 7,853 | 6,590 |
| STUB8792  | 552    | July 1, 1972 | 7,853 | 6,590 |
| X6585     | 501    | July 1, 1972 | 7,853 | 6,590 |
| BD423     | 602    | July 1, 1972 | 7,853 | 6,590 |
| BD424     | 601    | July 1, 1972 | 7,853 | 6,590 |
| BD464     | 221.1  | July 1, 1972 | 7,853 | 6,590 |
| DRIP5670  | 100    | July 1, 1972 | 7,853 | 6,590 |
| BD10283   |        | July 1, 1972 | 7,853 | 6,590 |
| BD10284   |        | July 1, 1972 | 7,853 | 6,590 |
| BD190     | 100    | July 1, 1972 | 7,853 | 6,590 |
| BD190     | 101    | July 1, 1972 | 7,853 | 6,590 |
| BD303     | 601    | July 1, 1972 | 7,853 | 6,590 |
| BD501     | 601    | July 1, 1972 | 7,853 | 6,590 |
| BD548     | 611    | July 1, 1972 | 7,853 | 6,590 |
| BD548     | 612    | July 1, 1972 | 7,853 | 6,590 |
| BD691     | 101    | July 1, 1972 | 7,853 | 6,590 |
| BD691     | 102    | July 1, 1972 | 7,853 | 6,590 |

|           |       |                   |       |       |
|-----------|-------|-------------------|-------|-------|
| BD7521    | 601   | July 1, 1972      | 7,853 | 6,590 |
| BD7522    | 602   | July 1, 1972      | 7,853 | 6,590 |
| BD7523    | 603   | July 1, 1972      | 7,853 | 6,590 |
| BD7524    | 605   | July 1, 1972      | 7,853 | 6,590 |
| DCUST2445 | 901   | July 1, 1972      | 7,853 | 6,590 |
| DCUST2491 | 901   | July 1, 1972      | 7,853 | 6,590 |
| STUB6248  | 551   | July 1, 1972      | 7,853 | 6,590 |
| STUB8120  | 102   | July 1, 1972      | 7,853 | 6,590 |
| DCUST2512 | 100   | May 1, 1973       | 7,549 | 6,590 |
| DCUST2512 | 101   | May 1, 1973       | 7,549 | 6,590 |
| 021E      | 193   | July 1, 1973      | 7,488 | 6,590 |
| 109       | 161   | July 1, 1973      | 7,488 | 6,590 |
| 109       | 161.3 | July 1, 1973      | 7,488 | 6,590 |
| 132       | 166   | July 1, 1973      | 7,488 | 6,590 |
| DCUST1853 | 757   | July 1, 1973      | 7,488 | 6,590 |
| BD9473    | 601   | July 1, 1973      | 7,488 | 6,590 |
| BD9477    | 601   | July 1, 1973      | 7,488 | 6,590 |
| 177A      | 128   | August 30, 1973   | 7,428 | 6,590 |
| DREG4987  | 104   | August 30, 1973   | 7,428 | 6,590 |
| DREG4987  | 108   | August 30, 1973   | 7,428 | 6,590 |
| 200-187   | 126   | July 2, 1974      | 7,122 | 6,590 |
| 200-188   | 102   | July 2, 1974      | 7,122 | 6,590 |
| 021E      | 200.5 | August 2, 1974    | 7,091 | 6,590 |
| 215       | 108   | November 22, 1974 | 6,979 | 6,590 |
| 138       | 117   | June 17, 1975     | 6,772 | 6,590 |
| 021C      | 122.6 | July 2, 1975      | 6,757 | 6,590 |
| 021D      | 116   | July 2, 1975      | 6,757 | 6,590 |
| GCUST5970 | 102   | July 2, 1975      | 6,757 | 6,590 |
| 177B      | 112.2 | November 15, 1975 | 6,621 | 6,590 |
| 021E      | 199.8 | January 30, 1976  | 6,545 | 6,590 |
| BD310     | 101   | January 30, 1976  | 6,545 | 6,590 |
| BD310     | 102   | January 30, 1976  | 6,545 | 6,590 |
| BD690     | 101   | January 30, 1976  | 6,545 | 6,590 |
| BD690     | 102   | January 30, 1976  | 6,545 | 6,590 |
| 202       | 119   | January 31, 1976  | 6,544 | 6,590 |
| 181A      | 105.1 | April 16, 1976    | 6,468 | 6,590 |
| 021A      | 116   | July 1, 1976      | 6,392 | 6,590 |
| 331A      | 139   | July 1, 1976      | 6,392 | 6,590 |
| BD602     | 463   | July 1, 1976      | 6,392 | 6,590 |
| 118A      | 165   | July 23, 1976     | 6,370 | 6,590 |
| 331A      | 105   | October 8, 1976   | 6,293 | 6,590 |
| 331A      | 105.1 | October 8, 1976   | 6,293 | 6,590 |
| 300B      | 375.6 | November 29, 1976 | 6,241 | 6,590 |
| 300A      | 344   | November 29, 1976 | 6,241 | 6,590 |
| 300A      | 345.1 | November 29, 1976 | 6,241 | 6,590 |
| 111A      | 104.5 | December 3, 1976  | 6,237 | 6,590 |
| 021E      | 196   | January 20, 1977  | 6,189 | 6,590 |
| 021A      | 119   | May 1, 1977       | 6,088 | 6,590 |
| 021A      | 119.5 | May 1, 1977       | 6,088 | 6,590 |
| 021A      | 120   | May 1, 1977       | 6,088 | 6,590 |
| 021A      | 120.1 | May 1, 1977       | 6,088 | 6,590 |
| 021A      | 120.3 | May 1, 1977       | 6,088 | 6,590 |
| 021A      | 125.1 | May 1, 1977       | 6,088 | 6,590 |
| 300B      | 255.5 | June 15, 1977     | 6,043 | 6,590 |
| 1816-15   | 323   | July 1, 1977      | 6,027 | 6,590 |
| 197A      | 118.1 | July 1, 1977      | 6,027 | 6,590 |
| 300A      | 385.5 | July 1, 1977      | 6,027 | 6,590 |
| 1622-01   | 208.2 | May 3, 1978       | 5,721 | 6,590 |
| 300B      | 375.7 | June 8, 1979      | 5,320 | 6,590 |
| 300A      | 345.2 | June 8, 1979      | 5,320 | 6,590 |
| 300A      | 345.3 | June 8, 1979      | 5,320 | 6,590 |
| 0405-01   | 122   | July 2, 1979      | 5,296 | 6,590 |
| 118B      | 135   | July 2, 1979      | 5,296 | 6,590 |
| 302W      | 107.5 | November 20, 1979 | 5,155 | 6,590 |
| 302W      | 108   | November 20, 1979 | 5,155 | 6,590 |
| 1813-02   | 154   | December 22, 1979 | 5,123 | 6,590 |
| 197C-2    | 317   | July 1, 1980      | 4,931 | 6,590 |
| 021E      | 198   | July 1, 1980      | 4,931 | 6,590 |
| 197C      | 111.5 | July 1, 1980      | 4,931 | 6,590 |
| 197C      | 111.6 | July 1, 1980      | 4,931 | 6,590 |
| 177A      | 151   | October 15, 1980  | 4,825 | 6,590 |
| 177A      | 152   | October 15, 1980  | 4,825 | 6,590 |
| 177A      | 152.3 | October 15, 1980  | 4,825 | 6,590 |
| 177A      | 153   | October 15, 1980  | 4,825 | 6,590 |
| 187       | 145   | November 1, 1980  | 4,808 | 6,590 |
| 021G      | 120   | December 10, 1980 | 4,769 | 6,590 |
| 021G      | 121   | December 10, 1980 | 4,769 | 6,590 |

|             |        |                   |       |       |
|-------------|--------|-------------------|-------|-------|
| 177A        | 134.2  | March 25, 1981    | 4,664 | 6,590 |
| 103         | 113    | March 26, 1981    | 4,663 | 6,590 |
| 177A        | 240    | May 7, 1981       | 4,621 | 6,590 |
| 050A        | 129    | July 1, 1981      | 4,566 | 6,590 |
| 1502-11     | 104    | July 1, 1981      | 4,566 | 6,590 |
| 137B        | 106.2  | July 1, 1981      | 4,566 | 6,590 |
| 197C-1      | 214    | July 1, 1981      | 4,566 | 6,590 |
| 197C-1      | 214.2  | July 1, 1981      | 4,566 | 6,590 |
| GCUST5824   | 401    | July 1, 1981      | 4,566 | 6,590 |
| GCUST5824   | 402    | July 1, 1981      | 4,566 | 6,590 |
| STUB6037    | 551    | July 1, 1981      | 4,566 | 6,590 |
| DREG6910    | 100    | September 9, 1981 | 4,496 | 6,590 |
| 210C-1      | 233    | October 31, 1981  | 4,444 | 6,590 |
| BD9898      | 601    | October 31, 1981  | 4,444 | 6,590 |
| 181A        | 103    | June 18, 1982     | 4,214 | 6,590 |
| 021B        | 107.7  | June 23, 1982     | 4,209 | 6,590 |
| 021D        | 117    | July 2, 1982      | 4,200 | 6,590 |
| 181B        | 111    | July 2, 1982      | 4,200 | 6,590 |
| 181B        | 112    | July 2, 1982      | 4,200 | 6,590 |
| GCUST8202   | 401    | July 2, 1982      | 4,200 | 6,590 |
| GCUST8202   | 402    | July 2, 1982      | 4,200 | 6,590 |
| 131         | 157.2  | November 25, 1982 | 4,054 | 6,590 |
| 210A        | 104    | November 27, 1982 | 4,052 | 6,590 |
| 111A        | 128.5  | February 12, 1983 | 3,975 | 6,590 |
| DCUST1205   | 901    | February 12, 1983 | 3,975 | 6,590 |
| 111A        | 135    | April 21, 1983    | 3,907 | 6,590 |
| 111A        | 135.3  | April 21, 1983    | 3,907 | 6,590 |
| 197B        | 110    | April 24, 1983    | 3,904 | 6,590 |
| 210C-1      | 219    | June 14, 1983     | 3,853 | 6,590 |
| 210C-1      | 224    | June 14, 1983     | 3,853 | 6,590 |
| BD299-100.7 | 100.7  | July 22, 1983     | 3,815 | 6,590 |
| DREG3857    | 100    | February 18, 1984 | 3,604 | 6,590 |
| 126B        | 127.5  | April 27, 1984    | 3,535 | 6,590 |
| BD248       | 100    | April 27, 1984    | 3,535 | 6,590 |
| BD248       | 101    | April 27, 1984    | 3,535 | 6,590 |
| 177A        | 228.2  | May 10, 1984      | 3,522 | 6,590 |
| 126B        | 131.3  | July 1, 1984      | 3,470 | 6,590 |
| 331A        | 140    | July 1, 1984      | 3,470 | 6,590 |
| 331A        | 141    | July 1, 1984      | 3,470 | 6,590 |
| DCUST1170   | 201    | July 1, 1984      | 3,470 | 6,590 |
| DCUST1170   | 204    | July 1, 1984      | 3,470 | 6,590 |
| DCUST1170   | 207    | July 1, 1984      | 3,470 | 6,590 |
| 215         | 120.1  | December 21, 1984 | 3,297 | 6,590 |
| 0600-01     | 102    | December 28, 1984 | 3,290 | 6,590 |
| 021A        | 109    | January 8, 1985   | 3,279 | 6,590 |
| 021A        | 109.3  | January 8, 1985   | 3,279 | 6,590 |
| 126A        | 111.2  | July 1, 1985      | 3,105 | 6,590 |
| 126A        | 111.4  | July 1, 1985      | 3,105 | 6,590 |
| DCUST978    | 102    | July 1, 1985      | 3,105 | 6,590 |
| BD242       | 101    | July 1, 1985      | 3,105 | 6,590 |
| BD357       | 100    | July 1, 1985      | 3,105 | 6,590 |
| STUB8475    | 551    | August 24, 1985   | 3,051 | 6,590 |
| 1511-01     | 117    | September 7, 1985 | 3,037 | 6,590 |
| 050B        | 104    | October 11, 1985  | 3,003 | 6,590 |
| 1213-01     | 309    | November 29, 1985 | 2,954 | 6,590 |
| 197A        | 106    | November 30, 1985 | 2,953 | 6,590 |
| 316-2       | 103    | January 30, 1986  | 2,892 | 6,590 |
| 050A        | 121.5  | April 26, 1986    | 2,806 | 6,590 |
| 167         | 130.6  | April 26, 1986    | 2,806 | 6,590 |
| 131         | 162.2  | May 29, 1986      | 2,773 | 6,590 |
| 131         | 162.8  | May 29, 1986      | 2,773 | 6,590 |
| 131         | 162.9  | May 29, 1986      | 2,773 | 6,590 |
| 131         | 163    | May 29, 1986      | 2,773 | 6,590 |
| GCUST5766   | 100.3  | June 7, 1986      | 2,764 | 6,590 |
| 103         | 127.3  | July 2, 1986      | 2,739 | 6,590 |
| 0833-02     | 102    | July 2, 1986      | 2,739 | 6,590 |
| 101         | 108.5  | July 2, 1986      | 2,739 | 6,590 |
| 101         | 109.4  | July 2, 1986      | 2,739 | 6,590 |
| BD368       | 219    | July 2, 1986      | 2,739 | 6,590 |
| BD369       | 215    | July 2, 1986      | 2,739 | 6,590 |
| DFDS8985    | 250.3  | July 2, 1986      | 2,739 | 6,590 |
| 177A        | 162    | August 27, 1986   | 2,683 | 6,590 |
| 177A        | 163    | August 27, 1986   | 2,683 | 6,590 |
| 300B        | 398    | February 25, 1987 | 2,501 | 6,590 |
| 118A        | 140.48 | February 26, 1987 | 2,500 | 6,590 |
| 400         | 386    | April 24, 1987    | 2,443 | 6,590 |
| 400         | 386.5  | April 24, 1987    | 2,443 | 6,590 |

|           |        |                    |       |       |
|-----------|--------|--------------------|-------|-------|
| 111A-1    | 110.3  | May 22, 1987       | 2,415 | 6,590 |
| 197C-2    | 313    | July 2, 1987       | 2,374 | 6,590 |
| 300B      | 261.2  | July 2, 1987       | 2,374 | 6,590 |
| 300B      | 261.3  | July 2, 1987       | 2,374 | 6,590 |
| 300B      | 261.4  | July 2, 1987       | 2,374 | 6,590 |
| BD464     | 221.2  | July 2, 1987       | 2,374 | 6,590 |
| BD549     | 260.2  | July 2, 1987       | 2,374 | 6,590 |
| BD549     | 261.1  | July 2, 1987       | 2,374 | 6,590 |
| 0405-01   | 118.95 | July 2, 1987       | 2,374 | 6,590 |
| DCUST2492 | 101    | July 2, 1987       | 2,374 | 6,590 |
| 107       | 151    | July 15, 1987      | 2,361 | 6,590 |
| 131       | 164    | July 15, 1987      | 2,361 | 6,590 |
| 177A      | 134.3  | January 30, 1988   | 2,162 | 6,590 |
| 177A      | 134.6  | January 30, 1988   | 2,162 | 6,590 |
| 177A-3    | 101L   | January 30, 1988   | 2,162 | 6,590 |
| 1613-06   | 407    | April 16, 1988     | 2,085 | 6,590 |
| 021E      | 195    | May 19, 1988       | 2,052 | 6,590 |
| 021E      | 195.5  | May 19, 1988       | 2,052 | 6,590 |
| 021E      | 195.7  | May 19, 1988       | 2,052 | 6,590 |
| 108       | 166.3  | July 1, 1988       | 2,009 | 6,590 |
| 300A-1    | 315    | July 1, 1988       | 2,009 | 6,590 |
| 0833-01   | 101    | July 1, 1988       | 2,009 | 6,590 |
| 1222-01   | 302    | July 1, 1988       | 2,009 | 6,590 |
| 301C      | 101.5  | July 1, 1988       | 2,009 | 6,590 |
| 301C      | 102    | July 1, 1988       | 2,009 | 6,590 |
| 301C      | 102.2  | July 1, 1988       | 2,009 | 6,590 |
| BD400     | 253    | July 1, 1988       | 2,009 | 6,590 |
| DF3444    | 301    | July 1, 1988       | 2,009 | 6,590 |
| 021G      | 121.3  | September 20, 1988 | 1,928 | 6,590 |
| 021G      | 121.5  | September 20, 1988 | 1,928 | 6,590 |
| 300B      | 263.5  | December 16, 1988  | 1,841 | 6,590 |
| 300B      | 263.7  | December 16, 1988  | 1,841 | 6,590 |
| 300B      | 263.9  | December 16, 1988  | 1,841 | 6,590 |
| 300B      | 264.2  | December 16, 1988  | 1,841 | 6,590 |
| 300B      | 264.4  | December 16, 1988  | 1,841 | 6,590 |
| 121       | 116    | January 31, 1989   | 1,795 | 6,590 |
| BD220     | 601    | January 31, 1989   | 1,795 | 6,590 |
| BD220     | 602    | January 31, 1989   | 1,795 | 6,590 |
| BD643     | 352    | February 11, 1989  | 1,784 | 6,590 |
| BD643     | 356    | February 11, 1989  | 1,784 | 6,590 |
| 1615-01   | 117.3  | April 19, 1989     | 1,717 | 6,590 |
| 021E      | 112.25 | June 10, 1989      | 1,665 | 6,590 |
| 021E      | 113    | June 10, 1989      | 1,665 | 6,590 |
| 021E      | 113.1  | June 10, 1989      | 1,665 | 6,590 |
| 021E      | 114.7  | June 10, 1989      | 1,665 | 6,590 |
| 021E      | 114    | June 10, 1989      | 1,665 | 6,590 |
| 021E      | 114.2  | June 10, 1989      | 1,665 | 6,590 |
| 7227-01   | 101.13 | July 1, 1989       | 1,644 | 6,590 |
| 057A      | 106.3  | July 1, 1989       | 1,644 | 6,590 |
| 200A2-11  | 100.3  | July 1, 1989       | 1,644 | 6,590 |
| 6614-03   | 101    | July 1, 1989       | 1,644 | 6,590 |
| BD649     | 131    | July 1, 1989       | 1,644 | 6,590 |
| BD649     | 132    | July 1, 1989       | 1,644 | 6,590 |
| GCUST5939 | 400.3  | July 1, 1989       | 1,644 | 6,590 |
| GCUST5939 | 401.3  | July 1, 1989       | 1,644 | 6,590 |
| 021F      | 101.3  | August 1, 1989     | 1,613 | 6,590 |
| 021F      | 102    | August 1, 1989     | 1,613 | 6,590 |
| 021G      | 101    | August 1, 1989     | 1,613 | 6,590 |
| 021E      | 112.2  | August 19, 1989    | 1,595 | 6,590 |
| 137B      | 102.1  | September 20, 1989 | 1,563 | 6,590 |
| 021D      | 103    | September 27, 1989 | 1,556 | 6,590 |
| 021D      | 103.5  | September 27, 1989 | 1,556 | 6,590 |
| 124A      | 116.3  | November 25, 1989  | 1,497 | 6,590 |
| 124A      | 116.5  | November 25, 1989  | 1,497 | 6,590 |
| 124A      | 116.7  | November 25, 1989  | 1,497 | 6,590 |
| 0630-01   | 121.2  | February 10, 1990  | 1,420 | 6,590 |
| 0630-01   | 121.21 | February 10, 1990  | 1,420 | 6,590 |
| 0630-01   | 121.22 | February 10, 1990  | 1,420 | 6,590 |
| 116       | 106    | June 9, 1990       | 1,301 | 6,590 |
| 1509-05   | 102    | July 2, 1990       | 1,278 | 6,590 |
| 1509-05   | 107    | July 2, 1990       | 1,278 | 6,590 |
| 300A      | 345.4  | July 2, 1990       | 1,278 | 6,590 |
| 050A      | 154.6  | July 2, 1990       | 1,278 | 6,590 |
| 050A      | 155    | July 2, 1990       | 1,278 | 6,590 |
| 0600-01   | 102.5  | July 2, 1990       | 1,278 | 6,590 |
| 0600-01   | 103    | July 2, 1990       | 1,278 | 6,590 |
| 108       | 131.43 | July 2, 1990       | 1,278 | 6,590 |

|           |         |                   |       |       |
|-----------|---------|-------------------|-------|-------|
| 108       | 131.7   | July 2, 1990      | 1,278 | 6,590 |
| 1626-01   | 202     | July 2, 1990      | 1,278 | 6,590 |
| 1626-01   | 203     | July 2, 1990      | 1,278 | 6,590 |
| 375       | 111     | July 2, 1990      | 1,278 | 6,590 |
| 197A      | 111     | October 26, 1990  | 1,162 | 6,590 |
| 177A      | 227     | November 1, 1990  | 1,156 | 6,590 |
| 210C      | 107     | November 15, 1990 | 1,142 | 6,590 |
| 300B      | 261.5   | January 16, 1991  | 1,080 | 6,590 |
| 300A      | 229.8   | January 21, 1991  | 1,075 | 6,590 |
| 300A      | 233     | January 21, 1991  | 1,075 | 6,590 |
| 300A      | 228.4   | February 12, 1991 | 1,053 | 6,590 |
| 300A      | 228.7   | February 12, 1991 | 1,053 | 6,590 |
| 1306-01   | 101.3   | April 6, 1991     | 1,000 | 6,590 |
| 121       | 115     | June 1, 1991      | 944   | 6,590 |
| 300A      | 218.6   | July 2, 1991      | 913   | 6,590 |
| 300A      | 218.7   | July 2, 1991      | 913   | 6,590 |
| 300A      | 218.8   | July 2, 1991      | 913   | 6,590 |
| 193-016   | 016.17  | July 2, 1991      | 913   | 6,590 |
| 193-016   | 16.18   | July 2, 1991      | 913   | 6,590 |
| 177A      | 110     | July 2, 1991      | 913   | 6,590 |
| 177A      | 110.6   | July 2, 1991      | 913   | 6,590 |
| 177A      | 110.7   | July 2, 1991      | 913   | 6,590 |
| 177A      | 110.8   | July 2, 1991      | 913   | 6,590 |
| 177A      | 110.3   | July 2, 1991      | 913   | 6,590 |
| 331B-1    | 301     | July 2, 1991      | 913   | 6,590 |
| 331B-1    | 302     | July 2, 1991      | 913   | 6,590 |
| GCUST5881 | 101     | July 2, 1991      | 913   | 6,590 |
| STUB6265  | 309     | July 2, 1991      | 913   | 6,590 |
| 021E      | 147     | July 7, 1991      | 908   | 6,590 |
| 7208-01   | 105     | August 21, 1991   | 863   | 6,590 |
| 1626-01   | 209     | August 30, 1991   | 854   | 6,590 |
| DREG4309  | 210     | August 30, 1991   | 854   | 6,590 |
| 108       | 167     | October 11, 1991  | 812   | 6,590 |
| 300A      | 184.6   | December 7, 1991  | 755   | 6,590 |
| 300A      | 184.9   | December 7, 1991  | 755   | 6,590 |
| 300A      | 185     | December 7, 1991  | 755   | 6,590 |
| DCUST2444 | 901     | December 7, 1991  | 755   | 6,590 |
| 137B      | 105.6   | December 27, 1991 | 735   | 6,590 |
| 197A      | 112     | January 16, 1992  | 715   | 6,590 |
| 197A      | 114.5   | January 16, 1992  | 715   | 6,590 |
| 197A      | 115     | January 16, 1992  | 715   | 6,590 |
| 123       | 120.3   | February 28, 1992 | 672   | 6,590 |
| 123       | 120.6   | February 28, 1992 | 672   | 6,590 |
| 124A      | 100     | February 28, 1992 | 672   | 6,590 |
| 124B      | 100.3   | February 28, 1992 | 672   | 6,590 |
| 124B      | 101     | February 28, 1992 | 672   | 6,590 |
| 124B      | 100.6   | February 28, 1992 | 672   | 6,590 |
| 306       | 123.0   | April 4, 1992     | 636   | 6,590 |
| 189       | 103     | April 25, 1992    | 615   | 6,590 |
| 191B      | 203     | May 21, 1992      | 589   | 6,590 |
| 118A      | 138     | June 20, 1992     | 559   | 6,590 |
| 0630-01   | 107.3   | June 27, 1992     | 552   | 6,590 |
| 0630-01   | 105.085 | June 27, 1992     | 552   | 6,590 |
| 0630-01   | 105.07  | June 27, 1992     | 552   | 6,590 |
| 021F      | 121     | July 1, 1992      | 548   | 6,590 |
| 111A-1    | 111     | July 1, 1992      | 548   | 6,590 |
| 118A      | 232.4   | July 1, 1992      | 548   | 6,590 |
| 1213-01   | 306     | July 1, 1992      | 548   | 6,590 |
| 300A      | 222.9   | July 1, 1992      | 548   | 6,590 |
| 300A      | 223.0   | July 1, 1992      | 548   | 6,590 |
| 111B      | 101.4   | July 1, 1992      | 548   | 6,590 |
| GCUST5823 | 401     | July 1, 1992      | 548   | 6,590 |
| BD196     | 112     | July 14, 1992     | 535   | 6,590 |
| 197A      | 121.6   | July 26, 1992     | 523   | 6,590 |
| 0630-01   | 123     | August 22, 1992   | 496   | 6,590 |
| SP3       | 118.2   | October 20, 1992  | 437   | 6,590 |
| SP3       | 118.31  | October 20, 1992  | 437   | 6,590 |
| DRIP7997  | 651     | October 20, 1992  | 437   | 6,590 |
| 172A      | 165     | December 29, 1992 | 367   | 6,590 |
| 172A      | 165.5   | December 29, 1992 | 367   | 6,590 |
| 7222-01   | 165     | March 10, 1993    | 296   | 6,590 |
| SP3       | 118     | March 18, 1993    | 288   | 6,590 |
| SP3       | 118.1   | March 18, 1993    | 288   | 6,590 |
| 121       | 116.2   | July 1, 1993      | 183   | 6,590 |
| 121       | 117     | July 1, 1993      | 183   | 6,590 |
| 121       | 116.4   | July 1, 1993      | 183   | 6,590 |
| 197C-2    | 318     | July 1, 1993      | 183   | 6,590 |

|            |         |                    |     |       |
|------------|---------|--------------------|-----|-------|
| 401        | 500     | July 1, 1993       | 183 | 6,590 |
| 301C       | 102.4   | July 1, 1993       | 183 | 6,590 |
| BD626      | 952     | July 1, 1993       | 183 | 6,590 |
| BD626      | 954     | July 1, 1993       | 183 | 6,590 |
| BD627      | 944     | July 1, 1993       | 183 | 6,590 |
| 021A       | 126     | August 21, 1993    | 132 | 6,590 |
| 124A       | 113     | August 27, 1993    | 126 | 6,590 |
| 050A       | 149.1   | April 1, 1994      | 0   | 6,590 |
| 191-1      | 123.2   | April 8, 1994      | 0   | 6,590 |
| 210B       | 127.3   | April 21, 1994     | 0   | 6,590 |
| 136        | 112.5   | May 17, 1994       | 0   | 6,590 |
| 1004-01    | 116     | May 25, 1994       | 0   | 6,590 |
| 118A       | 233.6   | July 2, 1994       | 0   | 6,590 |
| 401        | 596.2   | July 23, 1994      | 0   | 6,590 |
| 401        | 596.4   | July 23, 1994      | 0   | 6,590 |
| 401        | 597     | July 23, 1994      | 0   | 6,590 |
| 401        | 597.3   | July 23, 1994      | 0   | 6,590 |
| 401        | 597.6   | July 23, 1994      | 0   | 6,590 |
| 2408-01    | 238     | September 26, 1994 | 0   | 6,590 |
| 118A       | 176     | October 5, 1994    | 0   | 6,590 |
| 118B       | 143     | October 5, 1994    | 0   | 6,590 |
| GCUST5885  | 103     | June 30, 1995      | 0   | 6,045 |
| 7208-01    | 106     | July 2, 1995       | 0   | 6,043 |
| 7226-01    | 101.3   | August 24, 1995    | 0   | 5,990 |
| 7226-02    | 101.4   | August 24, 1995    | 0   | 5,990 |
| 148        | 108.251 | October 17, 1995   | 0   | 5,936 |
| 0405-01    | 117.5   | December 2, 1995   | 0   | 5,890 |
| DCUST1217  | 100     | March 9, 1996      | 0   | 5,792 |
| 118A       | 148     | March 12, 1996     | 0   | 5,789 |
| 118A       | 148.3   | March 12, 1996     | 0   | 5,789 |
| 021A       | 102     | April 16, 1996     | 0   | 5,754 |
| 402B       | 301     | May 2, 1996        | 0   | 5,738 |
| 402B       | 302     | May 2, 1996        | 0   | 5,738 |
| 402B       | 303     | May 2, 1996        | 0   | 5,738 |
| 1816-15    | 323     | May 22, 1996       | 0   | 5,718 |
| 1816-15    | 325     | May 22, 1996       | 0   | 5,718 |
| 1816-15    | 327     | May 22, 1996       | 0   | 5,718 |
| 1816-15    | 330     | May 22, 1996       | 0   | 5,718 |
| 1502-11    | 106.3   | July 1, 1996       | 0   | 5,678 |
| 187        | 127     | July 1, 1996       | 0   | 5,678 |
| 021A       | 102.2   | July 11, 1996      | 0   | 5,668 |
| 177A-3     | 101.3E  | August 1, 1996     | 0   | 5,647 |
| 7222-01    | 163.2   | December 11, 1996  | 0   | 5,515 |
| 7222-01    | 163.3   | December 11, 1996  | 0   | 5,515 |
| 1004-01    | 111.5   | December 17, 1996  | 0   | 5,509 |
| 300B       | 258.6   | February 7, 1997   | 0   | 5,457 |
| 7222-01    | 155.17  | February 25, 1997  | 0   | 5,439 |
| 002        | 188     | February 27, 1997  | 0   | 5,437 |
| 002        | 188.1   | February 27, 1997  | 0   | 5,437 |
| 177A       | 156     | April 20, 1997     | 0   | 5,385 |
| 177A       | 157     | April 20, 1997     | 0   | 5,385 |
| BD359      | 501     | April 20, 1997     | 0   | 5,385 |
| BD9430     | 602     | April 20, 1997     | 0   | 5,385 |
| 118A       | 241     | May 30, 1997       | 0   | 5,345 |
| 193-016    | 016.2   | July 1, 1997       | 0   | 5,313 |
| 193-016    | 016.4   | July 1, 1997       | 0   | 5,313 |
| 193-016    | 016.6   | July 1, 1997       | 0   | 5,313 |
| 193-016    | 016.3   | July 1, 1997       | 0   | 5,313 |
| 193-016    | 016.5   | July 1, 1997       | 0   | 5,313 |
| 193-016    | 016.7   | July 1, 1997       | 0   | 5,313 |
| STUB6101   | 210     | July 1, 1997       | 0   | 5,313 |
| 210C-1     | 218     | August 20, 1997    | 0   | 5,263 |
| BD669-601  | 601     | November 14, 1997  | 0   | 5,177 |
| BD7066-602 | 602     | November 14, 1997  | 0   | 5,177 |
| 116        | 107.1   | December 3, 1997   | 0   | 5,158 |
| 119A       | 105.1   | December 3, 1997   | 0   | 5,158 |
| 118A       | 256     | December 17, 1997  | 0   | 5,144 |
| 118E       | 100.6   | December 17, 1997  | 0   | 5,144 |
| 021A       | 102.4   | December 27, 1997  | 0   | 5,134 |
| 118A       | 136     | June 9, 1998       | 0   | 4,970 |
| 118B       | 107.2   | June 9, 1998       | 0   | 4,970 |
| 186        | 130     | June 20, 1998      | 0   | 4,959 |
| 177A       | 212     | July 2, 1998       | 0   | 4,947 |
| 1511-01    | 120.5   | July 18, 1998      | 0   | 4,931 |
| 050A       | 201     | July 31, 1998      | 0   | 4,918 |
| 118B       | 115     | September 22, 1998 | 0   | 4,865 |
| 118B       | 115.3   | September 22, 1998 | 0   | 4,865 |

|               |        |                    |   |       |
|---------------|--------|--------------------|---|-------|
| 210B          | 127.1  | September 27, 1998 | 0 | 4,860 |
| 136           | 108    | October 28, 1998   | 0 | 4,829 |
| 7211-02       | 101    | January 7, 1999    | 0 | 4,758 |
| 300B          | 258.5  | February 2, 1999   | 0 | 4,732 |
| SP3           | 117.5  | April 3, 1999      | 0 | 4,672 |
| 0645-01       | 106    | July 2, 1999       | 0 | 4,582 |
| 0645-01       | 107    | July 2, 1999       | 0 | 4,582 |
| 131           | 138.8  | August 18, 1999    | 0 | 4,535 |
| 131           | 137.9  | August 18, 1999    | 0 | 4,535 |
| 131           | 138.2  | August 18, 1999    | 0 | 4,535 |
| 131           | 138.5  | August 18, 1999    | 0 | 4,535 |
| 131           | 138.52 | August 18, 1999    | 0 | 4,535 |
| 131           | 137    | December 9, 1999   | 0 | 4,422 |
| 131           | 137.3  | December 9, 1999   | 0 | 4,422 |
| 131           | 137.6  | December 9, 1999   | 0 | 4,422 |
| 400           | 422    | December 22, 1999  | 0 | 4,409 |
| 303           | 131.8  | January 12, 2000   | 0 | 4,388 |
| 303           | 131.9  | January 12, 2000   | 0 | 4,388 |
| 303           | 131.7  | January 12, 2000   | 0 | 4,388 |
| 303           | 132    | January 12, 2000   | 0 | 4,388 |
| 306           | 133.6  | February 26, 2000  | 0 | 4,343 |
| 177A          | 158    | March 11, 2000     | 0 | 4,329 |
| 177A          | 158.2  | March 11, 2000     | 0 | 4,329 |
| 0405-01       | 116.65 | April 19, 2000     | 0 | 4,290 |
| 1615-04       | 106    | May 17, 2000       | 0 | 4,262 |
| 300B          | 264.5  | May 30, 2000       | 0 | 4,249 |
| 196B          | 101    | June 1, 2000       | 0 | 4,247 |
| 196B-1        | 201    | June 1, 2000       | 0 | 4,247 |
| 132           | 104.93 | July 1, 2000       | 0 | 4,217 |
| 1218-01       | 104    | November 4, 2000   | 0 | 4,091 |
| 1218-01       | 104.3  | November 4, 2000   | 0 | 4,091 |
| 1218-01       | 104.6  | November 4, 2000   | 0 | 4,091 |
| 197C-2        | 323    | November 16, 2000  | 0 | 4,079 |
| 108           | 130.1  | November 24, 2000  | 0 | 4,071 |
| 108           | 130.2  | November 24, 2000  | 0 | 4,071 |
| STUB10412     | 551    | December 9, 2000   | 0 | 4,056 |
| 306           | 134.3  | January 17, 2001   | 0 | 4,017 |
| 021E          | 123    | January 19, 2001   | 0 | 4,015 |
| 021E          | 125    | January 19, 2001   | 0 | 4,015 |
| 021E          | 198.2  | March 15, 2001     | 0 | 3,960 |
| 021E          | 198.5  | March 15, 2001     | 0 | 3,960 |
| 021E          | 198.5  | March 15, 2001     | 0 | 3,960 |
| 401           | 538.3  | April 5, 2001      | 0 | 3,939 |
| 401           | 539    | April 5, 2001      | 0 | 3,939 |
| 401           | 539.3  | April 5, 2001      | 0 | 3,939 |
| 050A          | 124    | April 18, 2001     | 0 | 3,926 |
| 1209-01       | 109    | April 24, 2001     | 0 | 3,920 |
| 1209-01       | 110    | April 24, 2001     | 0 | 3,920 |
| 057A-M15      | 101    | May 10, 2001       | 0 | 3,904 |
| 7221-10       | 113.3  | June 1, 2001       | 0 | 3,882 |
| 7221-10       | 115    | June 1, 2001       | 0 | 3,882 |
| 401           | 700    | June 22, 2001      | 0 | 3,861 |
| 0604-07       | 113    | July 1, 2001       | 0 | 3,852 |
| 300A          | 185.5  | July 1, 2001       | 0 | 3,852 |
| 210A          | 103.7  | July 1, 2001       | 0 | 3,852 |
| 131           | 145    | August 22, 2001    | 0 | 3,800 |
| 101           | 180.25 | November 3, 2001   | 0 | 3,727 |
| 306           | 135.9  | December 15, 2001  | 0 | 3,685 |
| 306           | 136.5  | December 15, 2001  | 0 | 3,685 |
| 306           | 137.3  | December 15, 2001  | 0 | 3,685 |
| 177B          | 112.6  | January 29, 2002   | 0 | 3,640 |
| 118A          | 232.2  | February 13, 2002  | 0 | 3,625 |
| 131           | 145.1  | March 30, 2002     | 0 | 3,580 |
| 1519-01-110   | 110    | May 8, 2002        | 0 | 3,541 |
| 1519-01-110.3 | 110.3  | May 8, 2002        | 0 | 3,541 |
| 021F          | 111    | July 2, 2002       | 0 | 3,486 |
| 187           | 161    | July 2, 2002       | 0 | 3,486 |
| 197A          | 117.5  | July 2, 2002       | 0 | 3,486 |
| 197A          | 117.7  | July 2, 2002       | 0 | 3,486 |
| DREG5442      | 101    | July 2, 2002       | 0 | 3,486 |
| 167           | 130.9  | July 6, 2002       | 0 | 3,482 |
| 187           | 156    | July 20, 2002      | 0 | 3,468 |
| 021E          | 112.1  | August 14, 2002    | 0 | 3,443 |
| 301A          | 111.9  | October 1, 2002    | 0 | 3,395 |
| 118A          | 163.9  | October 1, 2002    | 0 | 3,395 |
| 101           | 113.85 | October 16, 2002   | 0 | 3,380 |
| 210A          | 117.4  | October 25, 2002   | 0 | 3,371 |

|          |        |                   |   |       |
|----------|--------|-------------------|---|-------|
| 210A     | 117.45 | October 25, 2002  | 0 | 3,371 |
| BD443    | 606    | October 25, 2002  | 0 | 3,371 |
| 210C-1   | 215    | October 30, 2002  | 0 | 3,366 |
| 7221-10  | 107    | November 30, 2002 | 0 | 3,335 |
| 118E     | 100.5  | February 26, 2003 | 0 | 3,247 |
| 210B     | 118.5  | March 28, 2003    | 0 | 3,217 |
| 210B     | 118.8  | March 28, 2003    | 0 | 3,217 |
| 210B     | 119    | March 28, 2003    | 0 | 3,217 |
| BD464    | 251.4  | May 18, 2003      | 0 | 3,166 |
| BD464    | 251.5  | May 18, 2003      | 0 | 3,166 |
| 401      | 594    | May 30, 2003      | 0 | 3,154 |
| 300B     | 260.1  | July 2, 2003      | 0 | 3,121 |
| 304      | 101.8  | July 23, 2003     | 0 | 3,100 |
| BD644    | 101    | July 23, 2003     | 0 | 3,100 |
| BD644    | 102    | July 23, 2003     | 0 | 3,100 |
| 131      | 145.2  | September 3, 2003 | 0 | 3,058 |
| BD26     | 100    | November 1, 2003  | 0 | 2,999 |
| BD26     | 101    | November 1, 2003  | 0 | 2,999 |
| 050A     | 190.2  | November 5, 2003  | 0 | 2,995 |
| 300A     | 166.0  | December 19, 2003 | 0 | 2,951 |
| 108      | 127    | March 26, 2004    | 0 | 2,853 |
| 108      | 127.3  | March 26, 2004    | 0 | 2,853 |
| 108      | 128    | March 26, 2004    | 0 | 2,853 |
| 200A-3   | 102    | April 1, 2004     | 0 | 2,847 |
| 200A-3   | 102.3  | April 1, 2004     | 0 | 2,847 |
| 101      | 180.2  | April 18, 2004    | 0 | 2,830 |
| 101      | 180.23 | April 18, 2004    | 0 | 2,830 |
| DREG4987 | 105    | April 23, 2004    | 0 | 2,825 |
| DREG4987 | 106    | April 23, 2004    | 0 | 2,825 |
| DREG4987 | 107    | April 23, 2004    | 0 | 2,825 |
| 148      | 100.3  | May 1, 2004       | 0 | 2,817 |
| BD125    | 203    | May 1, 2004       | 0 | 2,817 |
| BD125    | 204    | May 1, 2004       | 0 | 2,817 |
| 050A     | 149.3  | June 22, 2004     | 0 | 2,765 |
| 050A     | 150    | June 22, 2004     | 0 | 2,765 |
| 1613-01  | 215    | July 1, 2004      | 0 | 2,756 |
| DREG4907 | 302    | July 1, 2004      | 0 | 2,756 |
| DREG4907 | 301    | July 1, 2004      | 0 | 2,756 |
| 187      | 117    | July 6, 2004      | 0 | 2,751 |
| 0405-01  | 103.2  | July 13, 2004     | 0 | 2,744 |
| 177A     | 132    | July 15, 2004     | 0 | 2,742 |
| 177A     | 132.5  | July 15, 2004     | 0 | 2,742 |
| 177A     | 132.7  | July 15, 2004     | 0 | 2,742 |
| BD9431   | 102    | July 15, 2004     | 0 | 2,742 |
| BD9433   | 101    | July 15, 2004     | 0 | 2,742 |
| 2408-11  | 114.5  | July 21, 2004     | 0 | 2,736 |
| 142N     | 105    | August 13, 2004   | 0 | 2,713 |
| 142N     | 106    | August 13, 2004   | 0 | 2,713 |
| 200-207  | 224    | October 8, 2004   | 0 | 2,657 |
| 200-209  | 226    | October 8, 2004   | 0 | 2,657 |
| 200-210  | 134    | October 8, 2004   | 0 | 2,657 |
| 200-213  | 109    | October 8, 2004   | 0 | 2,657 |
| 200-214  | 140    | October 8, 2004   | 0 | 2,657 |
| 200-215  | 288.3  | October 8, 2004   | 0 | 2,657 |
| 200-234  | 139    | October 8, 2004   | 0 | 2,657 |
| 200-244  | 155    | October 8, 2004   | 0 | 2,657 |
| 200-245  | 130    | October 8, 2004   | 0 | 2,657 |
| DREG4892 | 504    | November 9, 2004  | 0 | 2,625 |
| 197C-1   | 214.1  | November 13, 2004 | 0 | 2,621 |
| 300A     | 251.2  | November 17, 2004 | 0 | 2,617 |
| 300A     | 252.1  | November 17, 2004 | 0 | 2,617 |
| 021H     | 126    | November 26, 2004 | 0 | 2,608 |
| 124A     | 111    | January 7, 2005   | 0 | 2,566 |
| 132      | 104    | March 31, 2005    | 0 | 2,483 |
| 1818-01  | 123    | April 12, 2005    | 0 | 2,471 |
| 1818-01  | 123.3  | April 12, 2005    | 0 | 2,471 |
| 1818-01  | 125    | April 12, 2005    | 0 | 2,471 |
| 300A     | 214    | June 2, 2005      | 0 | 2,420 |
| 300A     | 216    | July 1, 2005      | 0 | 2,391 |
| 300A     | 217    | July 1, 2005      | 0 | 2,391 |
| 300A     | 217.8  | July 1, 2005      | 0 | 2,391 |
| 300A     | 218.0  | July 1, 2005      | 0 | 2,391 |
| 300A     | 218.04 | July 1, 2005      | 0 | 2,391 |
| 050A     | 193    | July 1, 2005      | 0 | 2,391 |
| 1310-01  | 102    | July 1, 2005      | 0 | 2,391 |
| 7221-10  | 115.3  | July 1, 2005      | 0 | 2,391 |
| BD464    | 216.3  | July 1, 2005      | 0 | 2,391 |

|          |        |                    |   |       |
|----------|--------|--------------------|---|-------|
| 210A     | 122    | July 13, 2005      | 0 | 2,379 |
| 210A     | 122.1  | July 13, 2005      | 0 | 2,379 |
| 210A     | 122.2  | July 13, 2005      | 0 | 2,379 |
| 210A     | 122.3  | July 13, 2005      | 0 | 2,379 |
| 210B     | 127.2  | July 13, 2005      | 0 | 2,379 |
| 2408-11  | 114.3  | November 3, 2005   | 0 | 2,266 |
| 2408-12  | 102.3  | November 3, 2005   | 0 | 2,266 |
| BD28     | 115    | November 5, 2005   | 0 | 2,264 |
| BD28     | 120    | November 5, 2005   | 0 | 2,264 |
| 138      | 133.2  | November 19, 2005  | 0 | 2,250 |
| 138      | 133.3  | November 19, 2005  | 0 | 2,250 |
| 1209-01  | 111    | November 25, 2005  | 0 | 2,244 |
| 1209-01  | 112    | November 25, 2005  | 0 | 2,244 |
| 121      | 113    | February 3, 2006   | 0 | 2,174 |
| 121      | 114    | February 3, 2006   | 0 | 2,174 |
| 177A     | 237    | February 3, 2006   | 0 | 2,174 |
| 200C4-4  | 101    | March 22, 2006     | 0 | 2,127 |
| 300B     | 295.4  | April 14, 2006     | 0 | 2,104 |
| 131      | 138.51 | May 31, 2006       | 0 | 2,057 |
| 2408-05  | 172    | May 31, 2006       | 0 | 2,057 |
| 2408-05  | 172.1  | May 31, 2006       | 0 | 2,057 |
| BD7984   | 100    | May 31, 2006       | 0 | 2,057 |
| BD7985   | 100    | May 31, 2006       | 0 | 2,057 |
| 197A     | 121.3  | July 2, 2006       | 0 | 2,025 |
| 197A     | 120.2  | July 2, 2006       | 0 | 2,025 |
| 306      | 138.3  | July 21, 2006      | 0 | 2,006 |
| 306      | 139.2  | July 21, 2006      | 0 | 2,006 |
| 174-1-1  | 113.3  | October 24, 2006   | 0 | 1,911 |
| 174-1-1  | 115    | October 24, 2006   | 0 | 1,911 |
| 174-1-1  | 115.2  | October 24, 2006   | 0 | 1,911 |
| 174-1-1  | 117    | October 24, 2006   | 0 | 1,911 |
| 174-1-1  | 115.3  | October 24, 2006   | 0 | 1,911 |
| 303      | 126.15 | November 3, 2006   | 0 | 1,901 |
| 303      | 126.17 | November 3, 2006   | 0 | 1,901 |
| BD602    | 464    | November 20, 2006  | 0 | 1,884 |
| 124A     | 100.5  | December 23, 2006  | 0 | 1,851 |
| 124A     | 101.03 | December 23, 2006  | 0 | 1,851 |
| 124B     | 101.3  | December 23, 2006  | 0 | 1,851 |
| 124B     | 101.4  | December 23, 2006  | 0 | 1,851 |
| 118A     | 117.07 | January 30, 2007   | 0 | 1,813 |
| 1613-06  | 408    | February 2, 2007   | 0 | 1,810 |
| 123      | 116    | February 10, 2007  | 0 | 1,802 |
| 300A     | 368.2  | March 15, 2007     | 0 | 1,769 |
| 300A     | 368.3  | March 15, 2007     | 0 | 1,769 |
| 123      | 114.8  | April 20, 2007     | 0 | 1,733 |
| 162A     | 101.4  | April 25, 2007     | 0 | 1,728 |
| 1502-02  | 111.1  | April 27, 2007     | 0 | 1,726 |
| 123      | 114.91 | May 10, 2007       | 0 | 1,713 |
| 057B     | 110    | June 29, 2007      | 0 | 1,663 |
| 057A     | 103    | June 29, 2007      | 0 | 1,663 |
| 057A     | 103.5  | June 29, 2007      | 0 | 1,663 |
| 0210-01  | 111.5  | July 2, 2007       | 0 | 1,660 |
| 0210-01  | 112    | July 2, 2007       | 0 | 1,660 |
| 0210-01  | 112.1  | July 2, 2007       | 0 | 1,660 |
| 021A     | 108    | July 2, 2007       | 0 | 1,660 |
| 118D     | 102    | July 2, 2007       | 0 | 1,660 |
| 210A     | 121.7  | August 28, 2007    | 0 | 1,603 |
| 210A     | 122.4  | August 28, 2007    | 0 | 1,603 |
| DREG5459 | 122    | September 25, 2007 | 0 | 1,575 |
| 300A     | 391.1  | October 3, 2007    | 0 | 1,567 |
| 300B     | 280.5  | December 1, 2007   | 0 | 1,508 |
| 108      | 109    | February 5, 2008   | 0 | 1,442 |
| 0630-01  | 125.1  | February 13, 2008  | 0 | 1,434 |
| DREG5005 | 801    | February 26, 2008  | 0 | 1,421 |
| 123      | 114.3  | March 5, 2008      | 0 | 1,413 |
| 123      | 114.32 | March 5, 2008      | 0 | 1,413 |
| 123      | 114.35 | March 5, 2008      | 0 | 1,413 |
| STUB8189 | 551    | March 5, 2008      | 0 | 1,413 |
| 172A     | 163.3  | April 19, 2008     | 0 | 1,368 |
| 108      | 131    | May 27, 2008       | 0 | 1,330 |
| 300B     | 350    | June 21, 2008      | 0 | 1,305 |
| 118A     | 117.05 | June 28, 2008      | 0 | 1,298 |
| 002      | 156.7  | July 1, 2008       | 0 | 1,295 |
| 187      | 152.7  | July 1, 2008       | 0 | 1,295 |
| 187      | 152.8  | July 1, 2008       | 0 | 1,295 |
| 187      | 152.9  | July 1, 2008       | 0 | 1,295 |
| 187      | 153.7  | July 1, 2008       | 0 | 1,295 |

|            |         |                    |   |       |
|------------|---------|--------------------|---|-------|
| 187        | 154.7   | July 1, 2008       | 0 | 1,295 |
| 197C       | 111.85  | July 1, 2008       | 0 | 1,295 |
| 300B       | 188     | August 21, 2008    | 0 | 1,244 |
| 306        | 123.1   | September 20, 2008 | 0 | 1,214 |
| 300A       | 389.7   | October 11, 2008   | 0 | 1,193 |
| 300A       | 390     | October 11, 2008   | 0 | 1,193 |
| 300A       | 390.3   | October 11, 2008   | 0 | 1,193 |
| 300A       | 391     | October 11, 2008   | 0 | 1,193 |
| 124A       | 101.3   | November 19, 2008  | 0 | 1,154 |
| 124B       | 102.25  | November 26, 2008  | 0 | 1,147 |
| STUB6123   | 551     | November 26, 2008  | 0 | 1,147 |
| 138D       | 102     | December 18, 2008  | 0 | 1,125 |
| 118A       | 117     | February 7, 2009   | 0 | 1,074 |
| 300A       | 240.647 | May 2, 2009        | 0 | 990   |
| BD8996-101 | 101     | May 2, 2009        | 0 | 990   |
| BD8996-102 | 102     | May 2, 2009        | 0 | 990   |
| BD8997-101 | 101     | May 2, 2009        | 0 | 990   |
| BD8997-102 | 102     | May 2, 2009        | 0 | 990   |
| 101        | 179     | July 1, 2009       | 0 | 930   |
| 101        | 179.8   | July 1, 2009       | 0 | 930   |
| 101        | 180.1   | July 1, 2009       | 0 | 930   |
| 101        | 180.15  | July 1, 2009       | 0 | 930   |
| 177A       | 191     | July 18, 2009      | 0 | 913   |
| 301B       | 114.6   | July 23, 2009      | 0 | 908   |
| 301B       | 115     | July 23, 2009      | 0 | 908   |
| 301C       | 100.1   | July 23, 2009      | 0 | 908   |
| 301C       | 101     | July 23, 2009      | 0 | 908   |
| 0630-01    | 106     | October 9, 2009    | 0 | 830   |
| 401        | 580     | November 20, 2009  | 0 | 788   |
| 401        | 580.1   | November 20, 2009  | 0 | 788   |
| 401        | 580.3   | November 20, 2009  | 0 | 788   |
| 401        | 581     | November 20, 2009  | 0 | 788   |
| 351        | 109     | January 30, 2010   | 0 | 717   |
| 108        | 167.1   | March 30, 2010     | 0 | 658   |
| 108        | 167.3   | March 30, 2010     | 0 | 658   |
| 108        | 167.5   | March 30, 2010     | 0 | 658   |
| 108        | 169.5   | March 30, 2010     | 0 | 658   |
| 108        | 169.7   | March 30, 2010     | 0 | 658   |
| 108        | 169.9   | March 30, 2010     | 0 | 658   |
| 108        | 170     | March 30, 2010     | 0 | 658   |
| 1027-01    | 106     | April 7, 2010      | 0 | 650   |
| 1027-04    | 102     | April 7, 2010      | 0 | 650   |
| 021B       | 103     | April 16, 2010     | 0 | 641   |
| 1020-01    | 102.5   | April 20, 2010     | 0 | 637   |
| DRIP8609   | 100     | April 27, 2010     | 0 | 630   |
| 111A       | 100.8   | May 15, 2010       | 0 | 612   |
| 111A       | 101     | May 15, 2010       | 0 | 612   |
| 111A       | 101.2   | May 15, 2010       | 0 | 612   |
| 111A       | 101.4   | May 15, 2010       | 0 | 612   |
| 111A       | 101.6   | May 15, 2010       | 0 | 612   |
| 111A       | 101.8   | May 15, 2010       | 0 | 612   |
| 111A       | 102     | May 15, 2010       | 0 | 612   |
| 050A       | 156     | May 21, 2010       | 0 | 606   |
| 108        | 177.5   | June 1, 2010       | 0 | 595   |
| 108        | 178.1   | June 1, 2010       | 0 | 595   |
| 108        | 178.13  | June 1, 2010       | 0 | 595   |
| 108        | 178.15  | June 1, 2010       | 0 | 595   |
| 108        | 178.2   | June 1, 2010       | 0 | 595   |
| 108        | 178.4   | June 1, 2010       | 0 | 595   |
| 108        | 178.42  | June 1, 2010       | 0 | 595   |
| 108        | 178.45  | June 1, 2010       | 0 | 595   |
| 108        | 178.6   | June 1, 2010       | 0 | 595   |
| 108        | 171.1   | June 1, 2010       | 0 | 595   |
| 108        | 177.7   | June 1, 2010       | 0 | 595   |
| 108        | 178.3   | June 1, 2010       | 0 | 595   |
| 108        | 178.35  | June 1, 2010       | 0 | 595   |
| 108        | 178.5   | June 1, 2010       | 0 | 595   |
| 108        | 178.55  | June 1, 2010       | 0 | 595   |
| 108        | 171.1   | June 1, 2010       | 0 | 595   |
| STUB9978   | 100     | June 1, 2010       | 0 | 595   |
| 177A       | 204     | July 11, 2010      | 0 | 555   |
| 142N       | 104     | August 10, 2010    | 0 | 525   |
| 142N       | 104.4   | August 10, 2010    | 0 | 525   |
| 101        | 112     | October 14, 2010   | 0 | 460   |
| 101        | 111.6   | October 14, 2010   | 0 | 460   |
| 101        | 111.65  | October 14, 2010   | 0 | 460   |
| 101        | 111.7   | October 14, 2010   | 0 | 460   |

|      |       |                  |   |     |
|------|-------|------------------|---|-----|
| 101  | 111.8 | October 14, 2010 | 0 | 460 |
| 101  | 110.3 | October 14, 2010 | 0 | 460 |
| 101  | 110.5 | October 14, 2010 | 0 | 460 |
| 021H | 124   | April 5, 2011    | 0 | 287 |

2,107,255

4,162,027

Table of Violations and Offenses

| Summary of 49 CFR §192.609 Violations |                |                      |                                |                                 |
|---------------------------------------|----------------|----------------------|--------------------------------|---------------------------------|
| Route                                 | Segment Number | Violation Start Date | Pre-1/1/1994 Days in Violation | Post-1/1/1994 Days in Violation |
| 300B                                  | 171.6          | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 172            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 171.8          | July 1, 1972         | 7,853                          | 6,590                           |
| 0407-01                               | 104.2          | July 1, 1972         | 7,853                          | 6,590                           |
| 147                                   | 103            | July 1, 1972         | 7,853                          | 6,590                           |
| 147                                   | 103.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 147                                   | 103.6          | July 1, 1972         | 7,853                          | 6,590                           |
| 181B                                  | 106.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 210B                                  | 117            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 164.1          | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 260.15         | July 1, 1972         | 7,853                          | 6,590                           |
| 300A                                  | 166.5          | July 1, 1972         | 7,853                          | 6,590                           |
| GCUST5912                             | 100.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 300A                                  | 165.9          | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 180            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 181            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 186            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 186.2          | July 1, 1972         | 7,853                          | 6,590                           |
| 301A                                  | 121.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 301G                                  | 117.3          | July 1, 1972         | 7,853                          | 6,590                           |
| GCUST5912                             | 100.6          | July 1, 1972         | 7,853                          | 6,590                           |
| GCUST5912                             | 102            | July 1, 1972         | 7,853                          | 6,590                           |
| 167                                   | 126.2          | July 1, 1972         | 7,853                          | 6,590                           |
| 300A                                  | 167.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 131                                   | 147            | July 1, 1972         | 7,853                          | 6,590                           |
| 111A                                  | 109            | July 1, 1972         | 7,853                          | 6,590                           |
| 111A                                  | 109.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 111A                                  | 110            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 174.8          | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 177            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 178            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 178.1          | July 1, 1972         | 7,853                          | 6,590                           |
| 181B                                  | 109.1          | July 1, 1972         | 7,853                          | 6,590                           |
| 301 F                                 | 105.4          | July 1, 1972         | 7,853                          | 6,590                           |
| 301 F                                 | 105.6          | July 1, 1972         | 7,853                          | 6,590                           |
| 301 F                                 | 106            | July 1, 1972         | 7,853                          | 6,590                           |
| 402                                   | 109            | July 1, 1972         | 7,853                          | 6,590                           |
| 402                                   | 109.9          | July 1, 1972         | 7,853                          | 6,590                           |
| BD423                                 | 602            | July 1, 1972         | 7,853                          | 6,590                           |
| BD424                                 | 601            | July 1, 1972         | 7,853                          | 6,590                           |
| BD464                                 | 221.1          | July 1, 1972         | 7,853                          | 6,590                           |
| DRIP5670                              | 100            | July 1, 1972         | 7,853                          | 6,590                           |
| STUB6248                              | 551            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 128            | August 30, 1973      | 7,428                          | 6,590                           |
| 138                                   | 117            | June 17, 1975        | 6,772                          | 6,590                           |
| 300B                                  | 375.6          | November 29, 1976    | 6,241                          | 6,590                           |
| 300A                                  | 344            | November 29, 1976    | 6,241                          | 6,590                           |
| 300A                                  | 345.1          | November 29, 1976    | 6,241                          | 6,590                           |
| 111A                                  | 104.5          | December 3, 1976     | 6,237                          | 6,590                           |
| 300A                                  | 385.5          | July 1, 1977         | 6,027                          | 6,590                           |
| 300B                                  | 375.7          | June 8, 1979         | 5,320                          | 6,590                           |
| 300A                                  | 345.2          | June 8, 1979         | 5,320                          | 6,590                           |
| 300A                                  | 345.3          | June 8, 1979         | 5,320                          | 6,590                           |
| 302W                                  | 107.5          | November 20, 1979    | 5,155                          | 6,590                           |
| 302W                                  | 108            | November 20, 1979    | 5,155                          | 6,590                           |
| 177A                                  | 151            | October 15, 1980     | 4,825                          | 6,590                           |
| 177A                                  | 152            | October 15, 1980     | 4,825                          | 6,590                           |
| 177A                                  | 152.3          | October 15, 1980     | 4,825                          | 6,590                           |
| 177A                                  | 153            | October 15, 1980     | 4,825                          | 6,590                           |
| 177A                                  | 134.2          | March 25, 1981       | 4,664                          | 6,590                           |
| 181B                                  | 111            | July 2, 1982         | 4,200                          | 6,590                           |
| 181B                                  | 112            | July 2, 1982         | 4,200                          | 6,590                           |
| 131                                   | 157.2          | November 25, 1982    | 4,054                          | 6,590                           |
| 210A                                  | 104            | November 27, 1982    | 4,052                          | 6,590                           |
| 111A                                  | 128.5          | February 12, 1983    | 3,975                          | 6,590                           |
| 210C-1                                | 219            | June 14, 1983        | 3,853                          | 6,590                           |
| 331A                                  | 140            | July 1, 1984         | 3,470                          | 6,590                           |
| 331A                                  | 141            | July 1, 1984         | 3,470                          | 6,590                           |
| 215                                   | 120.1          | December 21, 1984    | 3,297                          | 6,590                           |

|         |        |                    |       |       |
|---------|--------|--------------------|-------|-------|
| 1213-01 | 309    | November 29, 1985  | 2,954 | 6,590 |
| 167     | 130.6  | April 26, 1986     | 2,806 | 6,590 |
| 131     | 162.2  | May 29, 1986       | 2,773 | 6,590 |
| 131     | 162.8  | May 29, 1986       | 2,773 | 6,590 |
| 131     | 162.9  | May 29, 1986       | 2,773 | 6,590 |
| 131     | 163    | May 29, 1986       | 2,773 | 6,590 |
| 177A    | 162    | August 27, 1986    | 2,683 | 6,590 |
| 177A    | 163    | August 27, 1986    | 2,683 | 6,590 |
| 300B    | 398    | February 25, 1987  | 2,501 | 6,590 |
| 400     | 386    | April 24, 1987     | 2,443 | 6,590 |
| 400     | 386.5  | April 24, 1987     | 2,443 | 6,590 |
| 300B    | 261.2  | July 2, 1987       | 2,374 | 6,590 |
| 300B    | 261.3  | July 2, 1987       | 2,374 | 6,590 |
| 300B    | 261.4  | July 2, 1987       | 2,374 | 6,590 |
| BD464   | 221.2  | July 2, 1987       | 2,374 | 6,590 |
| BD549   | 260.2  | July 2, 1987       | 2,374 | 6,590 |
| BD549   | 261.1  | July 2, 1987       | 2,374 | 6,590 |
| 107     | 151    | July 15, 1987      | 2,361 | 6,590 |
| 131     | 164    | July 15, 1987      | 2,361 | 6,590 |
| 177A    | 134.3  | January 30, 1988   | 2,162 | 6,590 |
| 177A    | 134.6  | January 30, 1988   | 2,162 | 6,590 |
| 300A-1  | 315    | July 1, 1988       | 2,009 | 6,590 |
| BD643   | 352    | February 11, 1989  | 1,784 | 6,590 |
| BD643   | 356    | February 11, 1989  | 1,784 | 6,590 |
| 057A    | 106.3  | July 1, 1989       | 1,644 | 6,590 |
| 300A    | 345.4  | July 2, 1990       | 1,278 | 6,590 |
| 210C    | 107    | November 15, 1990  | 1,142 | 6,590 |
| 300B    | 261.5  | January 16, 1991   | 1,080 | 6,590 |
| 300A    | 218.6  | July 2, 1991       | 913   | 6,590 |
| 300A    | 218.7  | July 2, 1991       | 913   | 6,590 |
| 300A    | 218.8  | July 2, 1991       | 913   | 6,590 |
| 177A    | 110.7  | July 2, 1991       | 913   | 6,590 |
| 177A    | 110.8  | July 2, 1991       | 913   | 6,590 |
| 300A    | 184.6  | December 7, 1991   | 755   | 6,590 |
| 300A    | 184.9  | December 7, 1991   | 755   | 6,590 |
| 300A    | 185    | December 7, 1991   | 755   | 6,590 |
| 306     | 123.0  | April 4, 1992      | 636   | 6,590 |
| 1213-01 | 306    | July 1, 1992       | 548   | 6,590 |
| 300A    | 222.9  | July 1, 1992       | 548   | 6,590 |
| 300A    | 223.0  | July 1, 1992       | 548   | 6,590 |
| SP3     | 118.2  | October 20, 1992   | 437   | 6,590 |
| SP3     | 118.31 | October 20, 1992   | 437   | 6,590 |
| SP3     | 118    | March 18, 1993     | 288   | 6,590 |
| SP3     | 118.1  | March 18, 1993     | 288   | 6,590 |
| 401     | 500    | July 1, 1993       | 183   | 6,590 |
| 210B    | 127.3  | April 21, 1994     | 0     | 6,480 |
| 401     | 596.2  | July 23, 1994      | 0     | 6,387 |
| 401     | 596.4  | July 23, 1994      | 0     | 6,387 |
| 401     | 597    | July 23, 1994      | 0     | 6,387 |
| 401     | 597.3  | July 23, 1994      | 0     | 6,387 |
| 401     | 597.6  | July 23, 1994      | 0     | 6,387 |
| 177A-3  | 101.3E | August 1, 1996     | 0     | 5,647 |
| 300B    | 258.6  | February 7, 1997   | 0     | 5,457 |
| 002     | 188    | February 27, 1997  | 0     | 5,437 |
| 002     | 188.1  | February 27, 1997  | 0     | 5,437 |
| 177A    | 156    | April 20, 1997     | 0     | 5,385 |
| 177A    | 157    | April 20, 1997     | 0     | 5,385 |
| BD359   | 501    | April 20, 1997     | 0     | 5,385 |
| BD9430  | 602    | April 20, 1997     | 0     | 5,385 |
| 210C-1  | 218    | August 20, 1997    | 0     | 5,263 |
| 119A    | 105.1  | December 3, 1997   | 0     | 5,158 |
| 118A    | 256    | December 17, 1997  | 0     | 5,144 |
| 118E    | 100.6  | December 17, 1997  | 0     | 5,144 |
| 210B    | 127.1  | September 27, 1998 | 0     | 4,860 |
| 300B    | 258.5  | February 2, 1999   | 0     | 4,732 |
| 131     | 138.8  | August 18, 1999    | 0     | 4,535 |
| 131     | 137.9  | August 18, 1999    | 0     | 4,535 |
| 131     | 137    | December 9, 1999   | 0     | 4,422 |
| 400     | 422    | December 22, 1999  | 0     | 4,409 |
| 303     | 131.8  | January 12, 2000   | 0     | 4,388 |
| 303     | 131.9  | January 12, 2000   | 0     | 4,388 |
| 303     | 131.7  | January 12, 2000   | 0     | 4,388 |
| 303     | 132    | January 12, 2000   | 0     | 4,388 |
| 177A    | 158    | March 11, 2000     | 0     | 4,329 |
| 177A    | 158.2  | March 11, 2000     | 0     | 4,329 |
| 300B    | 264.5  | May 30, 2000       | 0     | 4,249 |
| 132     | 104.93 | July 1, 2000       | 0     | 4,217 |

|          |         |                    |   |       |
|----------|---------|--------------------|---|-------|
| 401      | 538.3   | April 5, 2001      | 0 | 3,939 |
| 401      | 539     | April 5, 2001      | 0 | 3,939 |
| 401      | 539.3   | April 5, 2001      | 0 | 3,939 |
| 057A-M15 | 101     | May 10, 2001       | 0 | 3,904 |
| 401      | 700     | June 22, 2001      | 0 | 3,861 |
| 300A     | 185.5   | July 1, 2001       | 0 | 3,852 |
| 210A     | 103.7   | July 1, 2001       | 0 | 3,852 |
| 131      | 145     | August 22, 2001    | 0 | 3,800 |
| 131      | 145.1   | March 30, 2002     | 0 | 3,580 |
| DREG5442 | 101     | July 2, 2002       | 0 | 3,486 |
| 167      | 130.9   | July 6, 2002       | 0 | 3,482 |
| 301A     | 111.9   | October 1, 2002    | 0 | 3,395 |
| 210A     | 117.4   | October 25, 2002   | 0 | 3,371 |
| 210A     | 117.45  | October 25, 2002   | 0 | 3,371 |
| BD443    | 606     | October 25, 2002   | 0 | 3,371 |
| 210C-1   | 215     | October 30, 2002   | 0 | 3,366 |
| 210B     | 118.5   | March 28, 2003     | 0 | 3,217 |
| 210B     | 119     | March 28, 2003     | 0 | 3,217 |
| BD464    | 251.4   | May 18, 2003       | 0 | 3,166 |
| BD464    | 251.5   | May 18, 2003       | 0 | 3,166 |
| 401      | 594     | May 30, 2003       | 0 | 3,154 |
| 300B     | 260.1   | July 2, 2003       | 0 | 3,121 |
| 304      | 101.8   | July 23, 2003      | 0 | 3,100 |
| BD644    | 101     | July 23, 2003      | 0 | 3,100 |
| BD644    | 102     | July 23, 2003      | 0 | 3,100 |
| 131      | 145.2   | September 3, 2003  | 0 | 3,058 |
| 108      | 127     | March 26, 2004     | 0 | 2,853 |
| 108      | 127.3   | March 26, 2004     | 0 | 2,853 |
| 200A-3   | 102     | April 1, 2004      | 0 | 2,847 |
| 200A-3   | 102.3   | April 1, 2004      | 0 | 2,847 |
| 177A     | 132     | July 15, 2004      | 0 | 2,742 |
| 177A     | 132.5   | July 15, 2004      | 0 | 2,742 |
| 177A     | 132.7   | July 15, 2004      | 0 | 2,742 |
| 200-244  | 155     | October 8, 2004    | 0 | 2,657 |
| 132      | 104     | March 31, 2005     | 0 | 2,483 |
| 300A     | 214     | June 2, 2005       | 0 | 2,420 |
| 300A     | 216     | July 1, 2005       | 0 | 2,391 |
| 300A     | 217     | July 1, 2005       | 0 | 2,391 |
| 300A     | 217.8   | July 1, 2005       | 0 | 2,391 |
| 300A     | 218.0   | July 1, 2005       | 0 | 2,391 |
| 300A     | 218.04  | July 1, 2005       | 0 | 2,391 |
| BD464    | 216.3   | July 1, 2005       | 0 | 2,391 |
| 210A     | 122.2   | July 13, 2005      | 0 | 2,379 |
| 138      | 133.2   | November 19, 2005  | 0 | 2,250 |
| 138      | 133.3   | November 19, 2005  | 0 | 2,250 |
| 300B     | 295.4   | April 14, 2006     | 0 | 2,104 |
| 306      | 139.2   | July 21, 2006      | 0 | 2,006 |
| 174-1-1  | 113.3   | October 24, 2006   | 0 | 1,911 |
| 303      | 126.15  | November 3, 2006   | 0 | 1,901 |
| 303      | 126.17  | November 3, 2006   | 0 | 1,901 |
| 300A     | 368.2   | March 15, 2007     | 0 | 1,769 |
| 300A     | 368.3   | March 15, 2007     | 0 | 1,769 |
| 057B     | 110     | June 29, 2007      | 0 | 1,663 |
| 057A     | 103     | June 29, 2007      | 0 | 1,663 |
| 057A     | 103.5   | June 29, 2007      | 0 | 1,663 |
| 300A     | 391.1   | October 3, 2007    | 0 | 1,567 |
| 300B     | 280.5   | December 1, 2007   | 0 | 1,508 |
| 108      | 109     | February 5, 2008   | 0 | 1,442 |
| DREG5005 | 801     | February 26, 2008  | 0 | 1,421 |
| 300B     | 350     | June 21, 2008      | 0 | 1,305 |
| 002      | 156.7   | July 1, 2008       | 0 | 1,295 |
| 300B     | 188     | August 21, 2008    | 0 | 1,244 |
| 306      | 123.1   | September 20, 2008 | 0 | 1,214 |
| 300A     | 390     | October 11, 2008   | 0 | 1,193 |
| 300A     | 390.3   | October 11, 2008   | 0 | 1,193 |
| 300A     | 240.647 | May 2, 2009        | 0 | 990   |
| 177A     | 191     | July 18, 2009      | 0 | 913   |
| 401      | 580     | November 20, 2009  | 0 | 788   |
| 401      | 580.1   | November 20, 2009  | 0 | 788   |
| 401      | 580.3   | November 20, 2009  | 0 | 788   |
| 401      | 581     | November 20, 2009  | 0 | 788   |
| 111A     | 100.8   | May 15, 2010       | 0 | 612   |
| 111A     | 101.2   | May 15, 2010       | 0 | 612   |
| 111A     | 101.4   | May 15, 2010       | 0 | 612   |
| 111A     | 101.6   | May 15, 2010       | 0 | 612   |
| 111A     | 101.8   | May 15, 2010       | 0 | 612   |
| 111A     | 102     | May 15, 2010       | 0 | 612   |

|      |     |                 |         |           |
|------|-----|-----------------|---------|-----------|
| 142N | 104 | August 10, 2010 | 0       | 525       |
|      |     |                 | 542,030 | 1,095,373 |

Table of Violations and Offenses

| Summary of 49 CFR §192.611 Violations |                |                      |                                |                                 |
|---------------------------------------|----------------|----------------------|--------------------------------|---------------------------------|
| Route                                 | Segment Number | Violation Start Date | Pre-1/1/1994 Days in Violation | Post-1/1/1994 Days in Violation |
| 300B                                  | 171.6          | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 172            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 171.8          | July 1, 1972         | 7,853                          | 6,590                           |
| 0407-01                               | 104.2          | July 1, 1972         | 7,853                          | 6,590                           |
| 147                                   | 103            | July 1, 1972         | 7,853                          | 6,590                           |
| 147                                   | 103.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 147                                   | 103.6          | July 1, 1972         | 7,853                          | 6,590                           |
| 181B                                  | 106.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 210B                                  | 117            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 164.1          | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 260.15         | July 1, 1972         | 7,853                          | 6,590                           |
| 300A                                  | 166.5          | July 1, 1972         | 7,853                          | 6,590                           |
| GCUST5912                             | 100.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 300A                                  | 165.9          | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 180            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 181            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 186            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 186.2          | July 1, 1972         | 7,853                          | 6,590                           |
| 301A                                  | 121.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 301G                                  | 117.3          | July 1, 1972         | 7,853                          | 6,590                           |
| GCUST5912                             | 100.6          | July 1, 1972         | 7,853                          | 6,590                           |
| GCUST5912                             | 102            | July 1, 1972         | 7,853                          | 6,590                           |
| 167                                   | 126.2          | July 1, 1972         | 7,853                          | 6,590                           |
| 300A                                  | 167.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 131                                   | 147            | July 1, 1972         | 7,853                          | 6,590                           |
| 111A                                  | 109            | July 1, 1972         | 7,853                          | 6,590                           |
| 111A                                  | 109.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 111A                                  | 110            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 174.8          | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 177            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 178            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 178.1          | July 1, 1972         | 7,853                          | 6,590                           |
| 181B                                  | 109.1          | July 1, 1972         | 7,853                          | 6,590                           |
| 301 F                                 | 105.4          | July 1, 1972         | 7,853                          | 6,590                           |
| 301 F                                 | 105.6          | July 1, 1972         | 7,853                          | 6,590                           |
| 301 F                                 | 106            | July 1, 1972         | 7,853                          | 6,590                           |
| 402                                   | 109            | July 1, 1972         | 7,853                          | 6,590                           |
| 402                                   | 109.9          | July 1, 1972         | 7,853                          | 6,590                           |
| BD423                                 | 602            | July 1, 1972         | 7,853                          | 6,590                           |
| BD424                                 | 601            | July 1, 1972         | 7,853                          | 6,590                           |
| BD464                                 | 221.1          | July 1, 1972         | 7,853                          | 6,590                           |
| DRIP5670                              | 100            | July 1, 1972         | 7,853                          | 6,590                           |
| STUB6248                              | 551            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 128            | August 30, 1973      | 7,428                          | 6,590                           |
| 138                                   | 117            | June 17, 1975        | 6,772                          | 6,590                           |
| 300B                                  | 375.6          | November 29, 1976    | 6,241                          | 6,590                           |
| 300A                                  | 344            | November 29, 1976    | 6,241                          | 6,590                           |
| 300A                                  | 345.1          | November 29, 1976    | 6,241                          | 6,590                           |
| 111A                                  | 104.5          | December 3, 1976     | 6,237                          | 6,590                           |
| 300A                                  | 385.5          | July 1, 1977         | 6,027                          | 6,590                           |
| 300B                                  | 375.7          | June 8, 1979         | 5,320                          | 6,590                           |
| 300A                                  | 345.2          | June 8, 1979         | 5,320                          | 6,590                           |
| 300A                                  | 345.3          | June 8, 1979         | 5,320                          | 6,590                           |
| 302W                                  | 107.5          | November 20, 1979    | 5,155                          | 6,590                           |
| 302W                                  | 108            | November 20, 1979    | 5,155                          | 6,590                           |
| 177A                                  | 151            | October 15, 1980     | 4,825                          | 6,590                           |
| 177A                                  | 152            | October 15, 1980     | 4,825                          | 6,590                           |
| 177A                                  | 152.3          | October 15, 1980     | 4,825                          | 6,590                           |
| 177A                                  | 153            | October 15, 1980     | 4,825                          | 6,590                           |
| 177A                                  | 134.2          | March 25, 1981       | 4,664                          | 6,590                           |
| 181B                                  | 111            | July 2, 1982         | 4,200                          | 6,590                           |
| 181B                                  | 112            | July 2, 1982         | 4,200                          | 6,590                           |
| 131                                   | 157.2          | November 25, 1982    | 4,054                          | 6,590                           |
| 210A                                  | 104            | November 27, 1982    | 4,052                          | 6,590                           |
| 111A                                  | 128.5          | February 12, 1983    | 3,975                          | 6,590                           |

|         |        |                    |       |       |
|---------|--------|--------------------|-------|-------|
| 210C-1  | 219    | June 14, 1983      | 3,853 | 6,590 |
| 331A    | 140    | July 1, 1984       | 3,470 | 6,590 |
| 331A    | 141    | July 1, 1984       | 3,470 | 6,590 |
| 215     | 120.1  | December 21, 1984  | 3,297 | 6,590 |
| 1213-01 | 309    | November 29, 1985  | 2,954 | 6,590 |
| 167     | 130.6  | April 26, 1986     | 2,806 | 6,590 |
| 131     | 162.2  | May 29, 1986       | 2,773 | 6,590 |
| 131     | 162.8  | May 29, 1986       | 2,773 | 6,590 |
| 131     | 162.9  | May 29, 1986       | 2,773 | 6,590 |
| 131     | 163    | May 29, 1986       | 2,773 | 6,590 |
| 177A    | 162    | August 27, 1986    | 2,683 | 6,590 |
| 177A    | 163    | August 27, 1986    | 2,683 | 6,590 |
| 300B    | 398    | February 25, 1987  | 2,501 | 6,590 |
| 400     | 386    | April 24, 1987     | 2,443 | 6,590 |
| 400     | 386.5  | April 24, 1987     | 2,443 | 6,590 |
| 300B    | 261.2  | July 2, 1987       | 2,374 | 6,590 |
| 300B    | 261.3  | July 2, 1987       | 2,374 | 6,590 |
| 300B    | 261.4  | July 2, 1987       | 2,374 | 6,590 |
| BD464   | 221.2  | July 2, 1987       | 2,374 | 6,590 |
| BD549   | 260.2  | July 2, 1987       | 2,374 | 6,590 |
| BD549   | 261.1  | July 2, 1987       | 2,374 | 6,590 |
| 107     | 151    | July 15, 1987      | 2,361 | 6,590 |
| 131     | 164    | July 15, 1987      | 2,361 | 6,590 |
| 177A    | 134.3  | January 30, 1988   | 2,162 | 6,590 |
| 177A    | 134.6  | January 30, 1988   | 2,162 | 6,590 |
| 300A-1  | 315    | July 1, 1988       | 2,009 | 6,590 |
| BD643   | 352    | February 11, 1989  | 1,784 | 6,590 |
| BD643   | 356    | February 11, 1989  | 1,784 | 6,590 |
| 057A    | 106.3  | July 1, 1989       | 1,644 | 6,590 |
| 300A    | 345.4  | July 2, 1990       | 1,278 | 6,590 |
| 210C    | 107    | November 15, 1990  | 1,142 | 6,590 |
| 300B    | 261.5  | January 16, 1991   | 1,080 | 6,590 |
| 300A    | 218.6  | July 2, 1991       | 913   | 6,590 |
| 300A    | 218.7  | July 2, 1991       | 913   | 6,590 |
| 300A    | 218.8  | July 2, 1991       | 913   | 6,590 |
| 177A    | 110.7  | July 2, 1991       | 913   | 6,590 |
| 177A    | 110.8  | July 2, 1991       | 913   | 6,590 |
| 300A    | 184.6  | December 7, 1991   | 755   | 6,590 |
| 300A    | 184.9  | December 7, 1991   | 755   | 6,590 |
| 300A    | 185    | December 7, 1991   | 755   | 6,590 |
| 306     | 123.0  | April 4, 1992      | 636   | 6,590 |
| 1213-01 | 306    | July 1, 1992       | 548   | 6,590 |
| 300A    | 222.9  | July 1, 1992       | 548   | 6,590 |
| 300A    | 223.0  | July 1, 1992       | 548   | 6,590 |
| SP3     | 118.2  | October 20, 1992   | 437   | 6,590 |
| SP3     | 118.31 | October 20, 1992   | 437   | 6,590 |
| SP3     | 118    | March 18, 1993     | 288   | 6,590 |
| SP3     | 118.1  | March 18, 1993     | 288   | 6,590 |
| 401     | 500    | July 1, 1993       | 183   | 6,590 |
| 210B    | 127.3  | April 21, 1994     | 0     | 6,480 |
| 401     | 596.2  | July 23, 1994      | 0     | 6,387 |
| 401     | 596.4  | July 23, 1994      | 0     | 6,387 |
| 401     | 597    | July 23, 1994      | 0     | 6,387 |
| 401     | 597.3  | July 23, 1994      | 0     | 6,387 |
| 401     | 597.6  | July 23, 1994      | 0     | 6,387 |
| 177A-3  | 101.3E | August 1, 1996     | 0     | 5,647 |
| 300B    | 258.6  | February 7, 1997   | 0     | 5,457 |
| 002     | 188    | February 27, 1997  | 0     | 5,437 |
| 002     | 188.1  | February 27, 1997  | 0     | 5,437 |
| 177A    | 156    | April 20, 1997     | 0     | 5,385 |
| 177A    | 157    | April 20, 1997     | 0     | 5,385 |
| BD359   | 501    | April 20, 1997     | 0     | 5,385 |
| BD9430  | 602    | April 20, 1997     | 0     | 5,385 |
| 210C-1  | 218    | August 20, 1997    | 0     | 5,263 |
| 119A    | 105.1  | December 3, 1997   | 0     | 5,158 |
| 118A    | 256    | December 17, 1997  | 0     | 5,144 |
| 118E    | 100.6  | December 17, 1997  | 0     | 5,144 |
| 210B    | 127.1  | September 27, 1998 | 0     | 4,860 |
| 300B    | 258.5  | February 2, 1999   | 0     | 4,732 |
| 131     | 138.8  | August 18, 1999    | 0     | 4,535 |
| 131     | 137.9  | August 18, 1999    | 0     | 4,535 |
| 131     | 137    | December 9, 1999   | 0     | 4,422 |

|          |        |                    |   |       |
|----------|--------|--------------------|---|-------|
| 400      | 422    | December 22, 1999  | 0 | 4,409 |
| 303      | 131.8  | January 12, 2000   | 0 | 4,388 |
| 303      | 131.9  | January 12, 2000   | 0 | 4,388 |
| 303      | 131.7  | January 12, 2000   | 0 | 4,388 |
| 303      | 132    | January 12, 2000   | 0 | 4,388 |
| 177A     | 158    | March 11, 2000     | 0 | 4,329 |
| 177A     | 158.2  | March 11, 2000     | 0 | 4,329 |
| 300B     | 264.5  | May 30, 2000       | 0 | 4,249 |
| 132      | 104.93 | July 1, 2000       | 0 | 4,217 |
| 401      | 538.3  | April 5, 2001      | 0 | 3,939 |
| 401      | 539    | April 5, 2001      | 0 | 3,939 |
| 401      | 539.3  | April 5, 2001      | 0 | 3,939 |
| 057A-M15 | 101    | May 10, 2001       | 0 | 3,904 |
| 401      | 700    | June 22, 2001      | 0 | 3,861 |
| 300A     | 185.5  | July 1, 2001       | 0 | 3,852 |
| 210A     | 103.7  | July 1, 2001       | 0 | 3,852 |
| 131      | 145    | August 22, 2001    | 0 | 3,800 |
| 131      | 145.1  | March 30, 2002     | 0 | 3,580 |
| DREG5442 | 101    | July 2, 2002       | 0 | 3,486 |
| 167      | 130.9  | July 6, 2002       | 0 | 3,482 |
| 301A     | 111.9  | October 1, 2002    | 0 | 3,395 |
| 210A     | 117.4  | October 25, 2002   | 0 | 3,371 |
| 210A     | 117.45 | October 25, 2002   | 0 | 3,371 |
| BD443    | 606    | October 25, 2002   | 0 | 3,371 |
| 210C-1   | 215    | October 30, 2002   | 0 | 3,366 |
| 210B     | 118.5  | March 28, 2003     | 0 | 3,217 |
| 210B     | 119    | March 28, 2003     | 0 | 3,217 |
| BD464    | 251.4  | May 18, 2003       | 0 | 3,166 |
| BD464    | 251.5  | May 18, 2003       | 0 | 3,166 |
| 401      | 594    | May 30, 2003       | 0 | 3,154 |
| 300B     | 260.1  | July 2, 2003       | 0 | 3,121 |
| 304      | 101.8  | July 23, 2003      | 0 | 3,100 |
| BD644    | 101    | July 23, 2003      | 0 | 3,100 |
| BD644    | 102    | July 23, 2003      | 0 | 3,100 |
| 131      | 145.2  | September 3, 2003  | 0 | 3,058 |
| 108      | 127    | March 26, 2004     | 0 | 2,853 |
| 108      | 127.3  | March 26, 2004     | 0 | 2,853 |
| 200A-3   | 102    | April 1, 2004      | 0 | 2,847 |
| 200A-3   | 102.3  | April 1, 2004      | 0 | 2,847 |
| 177A     | 132    | July 15, 2004      | 0 | 2,742 |
| 177A     | 132.5  | July 15, 2004      | 0 | 2,742 |
| 177A     | 132.7  | July 15, 2004      | 0 | 2,742 |
| 200-244  | 155    | October 8, 2004    | 0 | 2,657 |
| 132      | 104    | March 31, 2005     | 0 | 2,483 |
| 300A     | 214    | June 2, 2005       | 0 | 2,420 |
| 300A     | 216    | July 1, 2005       | 0 | 2,391 |
| 300A     | 217    | July 1, 2005       | 0 | 2,391 |
| 300A     | 217.8  | July 1, 2005       | 0 | 2,391 |
| 300A     | 218.0  | July 1, 2005       | 0 | 2,391 |
| 300A     | 218.04 | July 1, 2005       | 0 | 2,391 |
| BD464    | 216.3  | July 1, 2005       | 0 | 2,391 |
| 210A     | 122.2  | July 13, 2005      | 0 | 2,379 |
| 138      | 133.2  | November 19, 2005  | 0 | 2,250 |
| 138      | 133.3  | November 19, 2005  | 0 | 2,250 |
| 300B     | 295.4  | April 14, 2006     | 0 | 2,104 |
| 306      | 139.2  | July 21, 2006      | 0 | 2,006 |
| 174-1-1  | 113.3  | October 24, 2006   | 0 | 1,911 |
| 303      | 126.15 | November 3, 2006   | 0 | 1,901 |
| 303      | 126.17 | November 3, 2006   | 0 | 1,901 |
| 300A     | 368.2  | March 15, 2007     | 0 | 1,769 |
| 300A     | 368.3  | March 15, 2007     | 0 | 1,769 |
| 057B     | 110    | June 29, 2007      | 0 | 1,663 |
| 057A     | 103    | June 29, 2007      | 0 | 1,663 |
| 057A     | 103.5  | June 29, 2007      | 0 | 1,663 |
| 300A     | 391.1  | October 3, 2007    | 0 | 1,567 |
| 300B     | 280.5  | December 1, 2007   | 0 | 1,508 |
| 108      | 109    | February 5, 2008   | 0 | 1,442 |
| DREG5005 | 801    | February 26, 2008  | 0 | 1,421 |
| 300B     | 350    | June 21, 2008      | 0 | 1,305 |
| 002      | 156.7  | July 1, 2008       | 0 | 1,295 |
| 300B     | 188    | August 21, 2008    | 0 | 1,244 |
| 306      | 123.1  | September 20, 2008 | 0 | 1,214 |

|      |         |                   |         |           |
|------|---------|-------------------|---------|-----------|
| 300A | 390     | October 11, 2008  | 0       | 1,193     |
| 300A | 390.3   | October 11, 2008  | 0       | 1,193     |
| 300A | 240.647 | May 2, 2009       | 0       | 990       |
| 177A | 191     | July 18, 2009     | 0       | 913       |
| 401  | 580     | November 20, 2009 | 0       | 788       |
| 401  | 580.1   | November 20, 2009 | 0       | 788       |
| 401  | 580.3   | November 20, 2009 | 0       | 788       |
| 401  | 581     | November 20, 2009 | 0       | 788       |
| 111A | 100.8   | May 15, 2010      | 0       | 612       |
| 111A | 101.2   | May 15, 2010      | 0       | 612       |
| 111A | 101.4   | May 15, 2010      | 0       | 612       |
| 111A | 101.6   | May 15, 2010      | 0       | 612       |
| 111A | 101.8   | May 15, 2010      | 0       | 612       |
| 111A | 102     | May 15, 2010      | 0       | 612       |
| 142N | 104     | August 10, 2010   | 0       | 525       |
|      |         |                   | 542,030 | 1,095,373 |

## Table of Violations and Offenses

| Summary of 49 CFR §192.613 Violations |                |                      |                                |                                 |
|---------------------------------------|----------------|----------------------|--------------------------------|---------------------------------|
| Route                                 | Segment Number | Violation Start Date | Pre-1/1/1994 Days in Violation | Post-1/1/1994 Days in Violation |
| 300B                                  | 171.6          | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 172            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 164.1          | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 260.15         | July 1, 1972         | 7,853                          | 6,590                           |
| 301A                                  | 121.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 300A                                  | 166.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 180            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 181            | July 1, 1972         | 7,853                          | 6,590                           |
| 300A                                  | 167.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 167                                   | 126.2          | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 171.8          | July 1, 1972         | 7,853                          | 6,590                           |
| 301 F                                 | 105.6          | July 1, 1972         | 7,853                          | 6,590                           |
| 301 F                                 | 106            | July 1, 1972         | 7,853                          | 6,590                           |
| 111A                                  | 109.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 186            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 186.2          | July 1, 1972         | 7,853                          | 6,590                           |
| 301G                                  | 117.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 181B                                  | 106.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 181B                                  | 109.1          | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 174.8          | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 177            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 178            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 178.1          | July 1, 1972         | 7,853                          | 6,590                           |
| 210B                                  | 117            | July 1, 1972         | 7,853                          | 6,590                           |
| 300A                                  | 165.9          | July 1, 1972         | 7,853                          | 6,590                           |
| 147                                   | 103            | July 1, 1972         | 7,853                          | 6,590                           |
| 147                                   | 103.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 147                                   | 103.6          | July 1, 1972         | 7,853                          | 6,590                           |
| 402                                   | 109            | July 1, 1972         | 7,853                          | 6,590                           |
| 402                                   | 109.9          | July 1, 1972         | 7,853                          | 6,590                           |
| 124A                                  | 121            | July 1, 1972         | 7,853                          | 6,590                           |
| 181B                                  | 113            | July 1, 1972         | 7,853                          | 6,590                           |
| 105B                                  | 102.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 021E                                  | 163            | July 1, 1972         | 7,853                          | 6,590                           |
| 021E                                  | 134            | July 1, 1972         | 7,853                          | 6,590                           |
| 021E                                  | 155            | July 1, 1972         | 7,853                          | 6,590                           |
| 103                                   | 127            | July 1, 1972         | 7,853                          | 6,590                           |
| 131                                   | 115.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 021C                                  | 122            | July 1, 1972         | 7,853                          | 6,590                           |
| 021C                                  | 122.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 021C                                  | 122.9          | July 1, 1972         | 7,853                          | 6,590                           |
| 021C                                  | 123.2          | July 1, 1972         | 7,853                          | 6,590                           |
| 021C                                  | 124.3          | July 1, 1972         | 7,853                          | 6,590                           |
| 1615-01                               | 119            | July 1, 1972         | 7,853                          | 6,590                           |
| 220                                   | 141            | July 1, 1972         | 7,853                          | 6,590                           |
| 118B                                  | 147.6          | July 1, 1972         | 7,853                          | 6,590                           |
| 118B                                  | 148            | July 1, 1972         | 7,853                          | 6,590                           |
| 1818-01                               | 145            | July 1, 1972         | 7,853                          | 6,590                           |
| 307B                                  | 101            | July 1, 1972         | 7,853                          | 6,590                           |
| 307B                                  | 103            | July 1, 1972         | 7,853                          | 6,590                           |
| 181B                                  | 109            | July 1, 1972         | 7,853                          | 6,590                           |
| 181B                                  | 109.08         | July 1, 1972         | 7,853                          | 6,590                           |
| 301B                                  | 103            | July 1, 1972         | 7,853                          | 6,590                           |
| 0405-01                               | 118.9          | July 1, 1972         | 7,853                          | 6,590                           |
| 118B                                  | 145            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 247.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 243            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 207            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 212            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 213            | July 1, 1972         | 7,853                          | 6,590                           |
| 177A                                  | 217            | July 1, 1972         | 7,853                          | 6,590                           |
| 118A                                  | 213            | July 1, 1972         | 7,853                          | 6,590                           |
| 118A                                  | 214            | July 1, 1972         | 7,853                          | 6,590                           |

|           |        |              |       |       |
|-----------|--------|--------------|-------|-------|
| 118A      | 229    | July 1, 1972 | 7,853 | 6,590 |
| 124B      | 113.1  | July 1, 1972 | 7,853 | 6,590 |
| 124B      | 114    | July 1, 1972 | 7,853 | 6,590 |
| SP4Z      | 112.1  | July 1, 1972 | 7,853 | 6,590 |
| SP4Z      | 112.2  | July 1, 1972 | 7,853 | 6,590 |
| 1818-01   | 145.5  | July 1, 1972 | 7,853 | 6,590 |
| 177A      | 224.5  | July 1, 1972 | 7,853 | 6,590 |
| 181A      | 106    | July 1, 1972 | 7,853 | 6,590 |
| 181A      | 106.8  | July 1, 1972 | 7,853 | 6,590 |
| 0405-01   | 101.3  | July 1, 1972 | 7,853 | 6,590 |
| 0405-01   | 103    | July 1, 1972 | 7,853 | 6,590 |
| 189       | 102    | July 1, 1972 | 7,853 | 6,590 |
| 197C      | 111.68 | July 1, 1972 | 7,853 | 6,590 |
| 197C      | 111.75 | July 1, 1972 | 7,853 | 6,590 |
| 197C      | 111.8  | July 1, 1972 | 7,853 | 6,590 |
| BD246     | 100    | July 1, 1972 | 7,853 | 6,590 |
| BD246     | 101    | July 1, 1972 | 7,853 | 6,590 |
| 7223-01   | 101.5  | July 1, 1972 | 7,853 | 6,590 |
| STUB8792  | 551    | July 1, 1972 | 7,853 | 6,590 |
| BD303     | 601    | July 1, 1972 | 7,853 | 6,590 |
| 1502-08   | 101.3  | July 1, 1972 | 7,853 | 6,590 |
| GCUST5808 | 402    | July 1, 1972 | 7,853 | 6,590 |
| BD691     | 101    | July 1, 1972 | 7,853 | 6,590 |
| BD691     | 102    | July 1, 1972 | 7,853 | 6,590 |
| BD501     | 601    | July 1, 1972 | 7,853 | 6,590 |
| BD548     | 612    | July 1, 1972 | 7,853 | 6,590 |
| 0210-01   | 111    | July 1, 1972 | 7,853 | 6,590 |
| 3017-01   | 101.2  | July 1, 1972 | 7,853 | 6,590 |
| STUB8792  | 552    | July 1, 1972 | 7,853 | 6,590 |
| BD7521    | 601    | July 1, 1972 | 7,853 | 6,590 |
| BD190     | 100    | July 1, 1972 | 7,853 | 6,590 |
| BD190     | 101    | July 1, 1972 | 7,853 | 6,590 |
| DCUST1170 | 209    | July 1, 1972 | 7,853 | 6,590 |
| 0407-01   | 104    | July 1, 1972 | 7,853 | 6,590 |
| DCUST2445 | 901    | July 1, 1972 | 7,853 | 6,590 |
| DCUST2491 | 901    | July 1, 1972 | 7,853 | 6,590 |
| BD7522    | 602    | July 1, 1972 | 7,853 | 6,590 |
| BD7523    | 603    | July 1, 1972 | 7,853 | 6,590 |
| BD7524    | 605    | July 1, 1972 | 7,853 | 6,590 |
| 1502-08   | 101.2  | July 1, 1972 | 7,853 | 6,590 |
| 1502-08   | 101.25 | July 1, 1972 | 7,853 | 6,590 |
| DREG5492  | 100    | July 1, 1972 | 7,853 | 6,590 |
| BD548     | 611    | July 1, 1972 | 7,853 | 6,590 |
| DFDS6819  | 100    | July 1, 1972 | 7,853 | 6,590 |
| 314       | 119.2  | July 1, 1972 | 7,853 | 6,590 |
| 314       | 119.5  | July 1, 1972 | 7,853 | 6,590 |
| BD10283   |        | July 1, 1972 | 7,853 | 6,590 |
| BD10284   |        | July 1, 1972 | 7,853 | 6,590 |
| DCUST1170 | 211    | July 1, 1972 | 7,853 | 6,590 |
| 0407-01   | 104.2  | July 1, 1972 | 7,853 | 6,590 |
| 301 F     | 105.4  | July 1, 1972 | 7,853 | 6,590 |
| GCUST5912 | 100.6  | July 1, 1972 | 7,853 | 6,590 |
| GCUST5912 | 102    | July 1, 1972 | 7,853 | 6,590 |
| 111A      | 109    | July 1, 1972 | 7,853 | 6,590 |
| 111A      | 110    | July 1, 1972 | 7,853 | 6,590 |
| STUB6248  | 551    | July 1, 1972 | 7,853 | 6,590 |
| 131       | 147    | July 1, 1972 | 7,853 | 6,590 |
| BD423     | 602    | July 1, 1972 | 7,853 | 6,590 |
| BD424     | 601    | July 1, 1972 | 7,853 | 6,590 |
| DRIP5670  | 100    | July 1, 1972 | 7,853 | 6,590 |
| BD464     | 221.1  | July 1, 1972 | 7,853 | 6,590 |
| GCUST5912 | 100.3  | July 1, 1972 | 7,853 | 6,590 |
| DCUST2512 | 100    | May 1, 1973  | 7,549 | 6,590 |
| DCUST2512 | 101    | May 1, 1973  | 7,549 | 6,590 |
| 021E      | 193    | July 1, 1973 | 7,488 | 6,590 |
| 109       | 161    | July 1, 1973 | 7,488 | 6,590 |
| 132       | 166    | July 1, 1973 | 7,488 | 6,590 |
| 109       | 161.3  | July 1, 1973 | 7,488 | 6,590 |
| BD9473    | 601    | July 1, 1973 | 7,488 | 6,590 |
| BD9477    | 601    | July 1, 1973 | 7,488 | 6,590 |
| DCUST1853 | 757    | July 1, 1973 | 7,488 | 6,590 |

|           |       |                   |       |       |
|-----------|-------|-------------------|-------|-------|
| 177A      | 128   | August 30, 1973   | 7,428 | 6,590 |
| DREG4987  | 104   | August 30, 1973   | 7,428 | 6,590 |
| DREG4987  | 108   | August 30, 1973   | 7,428 | 6,590 |
| 021E      | 200.5 | August 2, 1974    | 7,091 | 6,590 |
| 215       | 108   | November 22, 1974 | 6,979 | 6,590 |
| 138       | 117   | June 17, 1975     | 6,772 | 6,590 |
| 021D      | 116   | July 2, 1975      | 6,757 | 6,590 |
| 021C      | 122.6 | July 2, 1975      | 6,757 | 6,590 |
| 177B      | 112.2 | November 15, 1975 | 6,621 | 6,590 |
| 021E      | 199.8 | January 30, 1976  | 6,545 | 6,590 |
| BD310     | 101   | January 30, 1976  | 6,545 | 6,590 |
| BD310     | 102   | January 30, 1976  | 6,545 | 6,590 |
| BD690     | 101   | January 30, 1976  | 6,545 | 6,590 |
| BD690     | 102   | January 30, 1976  | 6,545 | 6,590 |
| 202       | 119   | January 31, 1976  | 6,544 | 6,590 |
| 181A      | 105.1 | April 16, 1976    | 6,468 | 6,590 |
| 021A      | 116   | July 1, 1976      | 6,392 | 6,590 |
| 331A      | 139   | July 1, 1976      | 6,392 | 6,590 |
| BD602     | 463   | July 1, 1976      | 6,392 | 6,590 |
| 331A      | 105   | October 8, 1976   | 6,293 | 6,590 |
| 331A      | 105.1 | October 8, 1976   | 6,293 | 6,590 |
| 300B      | 375.6 | November 29, 1976 | 6,241 | 6,590 |
| 300A      | 344   | November 29, 1976 | 6,241 | 6,590 |
| 300A      | 345.1 | November 29, 1976 | 6,241 | 6,590 |
| 111A      | 104.5 | December 3, 1976  | 6,237 | 6,590 |
| 021E      | 196   | January 20, 1977  | 6,189 | 6,590 |
| 021A      | 120.3 | May 1, 1977       | 6,088 | 6,590 |
| 021A      | 119   | May 1, 1977       | 6,088 | 6,590 |
| 021A      | 119.5 | May 1, 1977       | 6,088 | 6,590 |
| 021A      | 120   | May 1, 1977       | 6,088 | 6,590 |
| 021A      | 120.1 | May 1, 1977       | 6,088 | 6,590 |
| 021A      | 125.1 | May 1, 1977       | 6,088 | 6,590 |
| 300A      | 385.5 | July 1, 1977      | 6,027 | 6,590 |
| 1816-15   | 323   | July 1, 1977      | 6,027 | 6,590 |
| 1622-01   | 208.2 | May 3, 1978       | 5,721 | 6,590 |
| 300B      | 375.7 | June 8, 1979      | 5,320 | 6,590 |
| 300A      | 345.2 | June 8, 1979      | 5,320 | 6,590 |
| 300A      | 345.3 | June 8, 1979      | 5,320 | 6,590 |
| 0405-01   | 122   | July 2, 1979      | 5,296 | 6,590 |
| 118B      | 135   | July 2, 1979      | 5,296 | 6,590 |
| 302W      | 108   | November 20, 1979 | 5,155 | 6,590 |
| 302W      | 107.5 | November 20, 1979 | 5,155 | 6,590 |
| 1813-02   | 154   | December 22, 1979 | 5,123 | 6,590 |
| 021E      | 198   | July 1, 1980      | 4,931 | 6,590 |
| 197C      | 111.5 | July 1, 1980      | 4,931 | 6,590 |
| 197C      | 111.6 | July 1, 1980      | 4,931 | 6,590 |
| 177A      | 152   | October 15, 1980  | 4,825 | 6,590 |
| 177A      | 152.3 | October 15, 1980  | 4,825 | 6,590 |
| 177A      | 153   | October 15, 1980  | 4,825 | 6,590 |
| 021G      | 120   | December 10, 1980 | 4,769 | 6,590 |
| 021G      | 121   | December 10, 1980 | 4,769 | 6,590 |
| 177A      | 134.2 | March 25, 1981    | 4,664 | 6,590 |
| 103       | 113   | March 26, 1981    | 4,663 | 6,590 |
| 177A      | 240   | May 7, 1981       | 4,621 | 6,590 |
| GCUST5824 | 401   | July 1, 1981      | 4,566 | 6,590 |
| GCUST5824 | 402   | July 1, 1981      | 4,566 | 6,590 |
| STUB6037  | 551   | July 1, 1981      | 4,566 | 6,590 |
| DREG6910  | 100   | September 9, 1981 | 4,496 | 6,590 |
| 210C-1    | 233   | October 31, 1981  | 4,444 | 6,590 |
| BD9898    | 601   | October 31, 1981  | 4,444 | 6,590 |
| 181A      | 103   | June 18, 1982     | 4,214 | 6,590 |
| 021B      | 107.7 | June 23, 1982     | 4,209 | 6,590 |
| 181B      | 111   | July 2, 1982      | 4,200 | 6,590 |
| 181B      | 112   | July 2, 1982      | 4,200 | 6,590 |
| 021D      | 117   | July 2, 1982      | 4,200 | 6,590 |
| 131       | 157.2 | November 25, 1982 | 4,054 | 6,590 |
| 210A      | 104   | November 27, 1982 | 4,052 | 6,590 |
| DCUST1205 | 901   | February 12, 1983 | 3,975 | 6,590 |
| 111A      | 128.5 | February 12, 1983 | 3,975 | 6,590 |
| 111A      | 135   | April 21, 1983    | 3,907 | 6,590 |
| 111A      | 135.3 | April 21, 1983    | 3,907 | 6,590 |

|             |        |                    |       |       |
|-------------|--------|--------------------|-------|-------|
| 197B        | 110    | April 24, 1983     | 3,904 | 6,590 |
| 210C-1      | 219    | June 14, 1983      | 3,853 | 6,590 |
| 210C-1      | 224    | June 14, 1983      | 3,853 | 6,590 |
| BD299-100.7 | 100.7  | July 22, 1983      | 3,815 | 6,590 |
| DREG3857    | 100    | February 18, 1984  | 3,604 | 6,590 |
| BD248       | 100    | April 27, 1984     | 3,535 | 6,590 |
| BD248       | 101    | April 27, 1984     | 3,535 | 6,590 |
| 177A        | 228.2  | May 10, 1984       | 3,522 | 6,590 |
| 331A        | 140    | July 1, 1984       | 3,470 | 6,590 |
| 331A        | 141    | July 1, 1984       | 3,470 | 6,590 |
| 215         | 120.1  | December 21, 1984  | 3,297 | 6,590 |
| 0600-01     | 102    | December 28, 1984  | 3,290 | 6,590 |
| 021A        | 109    | January 8, 1985    | 3,279 | 6,590 |
| 021A        | 109.3  | January 8, 1985    | 3,279 | 6,590 |
| 126A        | 111.2  | July 1, 1985       | 3,105 | 6,590 |
| BD242       | 101    | July 1, 1985       | 3,105 | 6,590 |
| BD357       | 100    | July 1, 1985       | 3,105 | 6,590 |
| DCUST978    | 102    | July 1, 1985       | 3,105 | 6,590 |
| STUB8475    | 551    | August 24, 1985    | 3,051 | 6,590 |
| 1511-01     | 117    | September 7, 1985  | 3,037 | 6,590 |
| 050B        | 104    | October 11, 1985   | 3,003 | 6,590 |
| 1213-01     | 309    | November 29, 1985  | 2,954 | 6,590 |
| 197A        | 106    | November 30, 1985  | 2,953 | 6,590 |
| 316-2       | 103    | January 30, 1986   | 2,892 | 6,590 |
| 167         | 130.6  | April 26, 1986     | 2,806 | 6,590 |
| 131         | 162.2  | May 29, 1986       | 2,773 | 6,590 |
| 131         | 162.8  | May 29, 1986       | 2,773 | 6,590 |
| 131         | 162.9  | May 29, 1986       | 2,773 | 6,590 |
| 131         | 163    | May 29, 1986       | 2,773 | 6,590 |
| GCUST5766   | 100.3  | June 7, 1986       | 2,764 | 6,590 |
| 101         | 108.5  | July 2, 1986       | 2,739 | 6,590 |
| 101         | 109.4  | July 2, 1986       | 2,739 | 6,590 |
| 0833-02     | 102    | July 2, 1986       | 2,739 | 6,590 |
| 103         | 127.3  | July 2, 1986       | 2,739 | 6,590 |
| BD368       | 219    | July 2, 1986       | 2,739 | 6,590 |
| BD369       | 215    | July 2, 1986       | 2,739 | 6,590 |
| DFDS8985    | 250.3  | July 2, 1986       | 2,739 | 6,590 |
| 177A        | 162    | August 27, 1986    | 2,683 | 6,590 |
| 177A        | 163    | August 27, 1986    | 2,683 | 6,590 |
| 300B        | 398    | February 25, 1987  | 2,501 | 6,590 |
| 400         | 386    | April 24, 1987     | 2,443 | 6,590 |
| 400         | 386.5  | April 24, 1987     | 2,443 | 6,590 |
| 300B        | 261.2  | July 2, 1987       | 2,374 | 6,590 |
| 300B        | 261.3  | July 2, 1987       | 2,374 | 6,590 |
| 300B        | 261.4  | July 2, 1987       | 2,374 | 6,590 |
| 0405-01     | 118.95 | July 2, 1987       | 2,374 | 6,590 |
| DCUST2492   | 101    | July 2, 1987       | 2,374 | 6,590 |
| BD464       | 221.2  | July 2, 1987       | 2,374 | 6,590 |
| BD549       | 260.2  | July 2, 1987       | 2,374 | 6,590 |
| BD549       | 261.1  | July 2, 1987       | 2,374 | 6,590 |
| 131         | 164    | July 15, 1987      | 2,361 | 6,590 |
| 107         | 151    | July 15, 1987      | 2,361 | 6,590 |
| 177A        | 134.3  | January 30, 1988   | 2,162 | 6,590 |
| 177A        | 134.6  | January 30, 1988   | 2,162 | 6,590 |
| 177A-3      | 101L   | January 30, 1988   | 2,162 | 6,590 |
| 1613-06     | 407    | April 16, 1988     | 2,085 | 6,590 |
| 021E        | 195    | May 19, 1988       | 2,052 | 6,590 |
| 021E        | 195.7  | May 19, 1988       | 2,052 | 6,590 |
| 021E        | 195.5  | May 19, 1988       | 2,052 | 6,590 |
| 300A-1      | 315    | July 1, 1988       | 2,009 | 6,590 |
| 301C        | 101.5  | July 1, 1988       | 2,009 | 6,590 |
| 301C        | 102    | July 1, 1988       | 2,009 | 6,590 |
| 301C        | 102.2  | July 1, 1988       | 2,009 | 6,590 |
| 108         | 166.3  | July 1, 1988       | 2,009 | 6,590 |
| 0833-01     | 101    | July 1, 1988       | 2,009 | 6,590 |
| BD400       | 253    | July 1, 1988       | 2,009 | 6,590 |
| 1222-01     | 302    | July 1, 1988       | 2,009 | 6,590 |
| DF3444      | 301    | July 1, 1988       | 2,009 | 6,590 |
| 021G        | 121.3  | September 20, 1988 | 1,928 | 6,590 |
| 021G        | 121.5  | September 20, 1988 | 1,928 | 6,590 |
| 121         | 116    | January 31, 1989   | 1,795 | 6,590 |

|           |        |                    |       |       |
|-----------|--------|--------------------|-------|-------|
| BD220     | 601    | January 31, 1989   | 1,795 | 6,590 |
| BD220     | 602    | January 31, 1989   | 1,795 | 6,590 |
| BD643     | 352    | February 11, 1989  | 1,784 | 6,590 |
| BD643     | 356    | February 11, 1989  | 1,784 | 6,590 |
| 1615-01   | 117.3  | April 19, 1989     | 1,717 | 6,590 |
| 021E      | 112.25 | June 10, 1989      | 1,665 | 6,590 |
| 021E      | 113    | June 10, 1989      | 1,665 | 6,590 |
| 021E      | 113.1  | June 10, 1989      | 1,665 | 6,590 |
| 021E      | 114.7  | June 10, 1989      | 1,665 | 6,590 |
| 057A      | 106.3  | July 1, 1989       | 1,644 | 6,590 |
| BD649     | 132    | July 1, 1989       | 1,644 | 6,590 |
| BD649     | 131    | July 1, 1989       | 1,644 | 6,590 |
| 6614-03   | 101    | July 1, 1989       | 1,644 | 6,590 |
| 7227-01   | 101.13 | July 1, 1989       | 1,644 | 6,590 |
| 021F      | 102    | August 1, 1989     | 1,613 | 6,590 |
| 021F      | 101.3  | August 1, 1989     | 1,613 | 6,590 |
| 021G      | 101    | August 1, 1989     | 1,613 | 6,590 |
| 021E      | 112.2  | August 19, 1989    | 1,595 | 6,590 |
| 021D      | 103    | September 27, 1989 | 1,556 | 6,590 |
| 021D      | 103.5  | September 27, 1989 | 1,556 | 6,590 |
| 124A      | 116.3  | November 25, 1989  | 1,497 | 6,590 |
| 124A      | 116.5  | November 25, 1989  | 1,497 | 6,590 |
| 124A      | 116.7  | November 25, 1989  | 1,497 | 6,590 |
| 300A      | 345.4  | July 2, 1990       | 1,278 | 6,590 |
| 1509-05   | 102    | July 2, 1990       | 1,278 | 6,590 |
| 1509-05   | 107    | July 2, 1990       | 1,278 | 6,590 |
| 108       | 131.43 | July 2, 1990       | 1,278 | 6,590 |
| 108       | 131.7  | July 2, 1990       | 1,278 | 6,590 |
| 375       | 111    | July 2, 1990       | 1,278 | 6,590 |
| 0600-01   | 102.5  | July 2, 1990       | 1,278 | 6,590 |
| 0600-01   | 103    | July 2, 1990       | 1,278 | 6,590 |
| 1626-01   | 202    | July 2, 1990       | 1,278 | 6,590 |
| 1626-01   | 203    | July 2, 1990       | 1,278 | 6,590 |
| 197A      | 111    | October 26, 1990   | 1,162 | 6,590 |
| 177A      | 227    | November 1, 1990   | 1,156 | 6,590 |
| 210C      | 107    | November 15, 1990  | 1,142 | 6,590 |
| 300B      | 261.5  | January 16, 1991   | 1,080 | 6,590 |
| 1306-01   | 101.3  | April 6, 1991      | 1,000 | 6,590 |
| 121       | 115    | June 1, 1991       | 944   | 6,590 |
| 300A      | 218.6  | July 2, 1991       | 913   | 6,590 |
| 300A      | 218.7  | July 2, 1991       | 913   | 6,590 |
| 300A      | 218.8  | July 2, 1991       | 913   | 6,590 |
| 177A      | 110.7  | July 2, 1991       | 913   | 6,590 |
| 177A      | 110.8  | July 2, 1991       | 913   | 6,590 |
| 331B-1    | 301    | July 2, 1991       | 913   | 6,590 |
| 331B-1    | 302    | July 2, 1991       | 913   | 6,590 |
| STUB6265  | 309    | July 2, 1991       | 913   | 6,590 |
| 177A      | 110    | July 2, 1991       | 913   | 6,590 |
| 177A      | 110.6  | July 2, 1991       | 913   | 6,590 |
| 193-016   | 016.17 | July 2, 1991       | 913   | 6,590 |
| 193-016   | 16.18  | July 2, 1991       | 913   | 6,590 |
| 021E      | 147    | July 7, 1991       | 908   | 6,590 |
| 1626-01   | 209    | August 30, 1991    | 854   | 6,590 |
| DREG4309  | 210    | August 30, 1991    | 854   | 6,590 |
| 108       | 167    | October 11, 1991   | 812   | 6,590 |
| 300A      | 184.6  | December 7, 1991   | 755   | 6,590 |
| 300A      | 185    | December 7, 1991   | 755   | 6,590 |
| 300A      | 184.9  | December 7, 1991   | 755   | 6,590 |
| DCUST2444 | 901    | December 7, 1991   | 755   | 6,590 |
| 197A      | 112    | January 16, 1992   | 715   | 6,590 |
| 197A      | 114.5  | January 16, 1992   | 715   | 6,590 |
| 197A      | 115    | January 16, 1992   | 715   | 6,590 |
| 124A      | 100    | February 28, 1992  | 672   | 6,590 |
| 123       | 120.3  | February 28, 1992  | 672   | 6,590 |
| 124B      | 100.3  | February 28, 1992  | 672   | 6,590 |
| 124B      | 101    | February 28, 1992  | 672   | 6,590 |
| 123       | 120.6  | February 28, 1992  | 672   | 6,590 |
| 306       | 123.0  | April 4, 1992      | 636   | 6,590 |
| 189       | 103    | April 25, 1992     | 615   | 6,590 |
| 300A      | 222.9  | July 1, 1992       | 548   | 6,590 |
| 300A      | 223.0  | July 1, 1992       | 548   | 6,590 |

|            |        |                    |     |       |
|------------|--------|--------------------|-----|-------|
| 111B       | 101.4  | July 1, 1992       | 548 | 6,590 |
| 111A-1     | 111    | July 1, 1992       | 548 | 6,590 |
| 021F       | 121    | July 1, 1992       | 548 | 6,590 |
| 118A       | 232.4  | July 1, 1992       | 548 | 6,590 |
| GCUST5823  | 401    | July 1, 1992       | 548 | 6,590 |
| 1213-01    | 306    | July 1, 1992       | 548 | 6,590 |
| BD196      | 112    | July 14, 1992      | 535 | 6,590 |
| 197A       | 121.6  | July 26, 1992      | 523 | 6,590 |
| SP3        | 118.2  | October 20, 1992   | 437 | 6,590 |
| SP3        | 118.31 | October 20, 1992   | 437 | 6,590 |
| DRIP7997   | 651    | October 20, 1992   | 437 | 6,590 |
| 172A       | 165    | December 29, 1992  | 367 | 6,590 |
| 172A       | 165.5  | December 29, 1992  | 367 | 6,590 |
| 7222-01    | 165    | March 10, 1993     | 296 | 6,590 |
| SP3        | 118    | March 18, 1993     | 288 | 6,590 |
| SP3        | 118.1  | March 18, 1993     | 288 | 6,590 |
| 401        | 500    | July 1, 1993       | 183 | 6,590 |
| 121        | 116.2  | July 1, 1993       | 183 | 6,590 |
| 121        | 117    | July 1, 1993       | 183 | 6,590 |
| 301C       | 102.4  | July 1, 1993       | 183 | 6,590 |
| BD626      | 952    | July 1, 1993       | 183 | 6,590 |
| BD626      | 954    | July 1, 1993       | 183 | 6,590 |
| BD627      | 944    | July 1, 1993       | 183 | 6,590 |
| 021A       | 126    | August 21, 1993    | 132 | 6,590 |
| 124A       | 113    | August 27, 1993    | 126 | 6,590 |
| 210B       | 127.3  | April 21, 1994     | 0   | 6,480 |
| 136        | 112.5  | May 17, 1994       | 0   | 6,454 |
| 1004-01    | 116    | May 25, 1994       | 0   | 6,446 |
| 401        | 596.2  | July 23, 1994      | 0   | 6,387 |
| 401        | 596.4  | July 23, 1994      | 0   | 6,387 |
| 401        | 597    | July 23, 1994      | 0   | 6,387 |
| 401        | 597.6  | July 23, 1994      | 0   | 6,387 |
| 401        | 597.3  | July 23, 1994      | 0   | 6,387 |
| 2408-01    | 238    | September 26, 1994 | 0   | 6,322 |
| 118B       | 143    | October 5, 1994    | 0   | 6,313 |
| GCUST5885  | 103    | June 30, 1995      | 0   | 6,045 |
| 7226-01    | 101.3  | August 24, 1995    | 0   | 5,990 |
| 7226-02    | 101.4  | August 24, 1995    | 0   | 5,990 |
| 0405-01    | 117.5  | December 2, 1995   | 0   | 5,890 |
| DCUST1217  | 100    | March 9, 1996      | 0   | 5,792 |
| 021A       | 102    | April 16, 1996     | 0   | 5,754 |
| 402B       | 303    | May 2, 1996        | 0   | 5,738 |
| 402B       | 302    | May 2, 1996        | 0   | 5,738 |
| 402B       | 301    | May 2, 1996        | 0   | 5,738 |
| 1816-15    | 323    | May 22, 1996       | 0   | 5,718 |
| 1816-15    | 325    | May 22, 1996       | 0   | 5,718 |
| 1816-15    | 327    | May 22, 1996       | 0   | 5,718 |
| 1816-15    | 330    | May 22, 1996       | 0   | 5,718 |
| 021A       | 102.2  | July 11, 1996      | 0   | 5,668 |
| 177A-3     | 101.3E | August 1, 1996     | 0   | 5,647 |
| 7222-01    | 163.2  | December 11, 1996  | 0   | 5,515 |
| 1004-01    | 111.5  | December 17, 1996  | 0   | 5,509 |
| 300B       | 258.6  | February 7, 1997   | 0   | 5,457 |
| 7222-01    | 155.17 | February 25, 1997  | 0   | 5,439 |
| 002        | 188    | February 27, 1997  | 0   | 5,437 |
| 002        | 188.1  | February 27, 1997  | 0   | 5,437 |
| 177A       | 156    | April 20, 1997     | 0   | 5,385 |
| 177A       | 157    | April 20, 1997     | 0   | 5,385 |
| BD9430     | 602    | April 20, 1997     | 0   | 5,385 |
| BD359      | 501    | April 20, 1997     | 0   | 5,385 |
| 118A       | 241    | May 30, 1997       | 0   | 5,345 |
| 193-016    | 016.2  | July 1, 1997       | 0   | 5,313 |
| 193-016    | 016.4  | July 1, 1997       | 0   | 5,313 |
| 193-016    | 016.6  | July 1, 1997       | 0   | 5,313 |
| 210C-1     | 218    | August 20, 1997    | 0   | 5,263 |
| BD669-601  | 601    | November 14, 1997  | 0   | 5,177 |
| BD7066-602 | 602    | November 14, 1997  | 0   | 5,177 |
| 119A       | 105.1  | December 3, 1997   | 0   | 5,158 |
| 118A       | 256    | December 17, 1997  | 0   | 5,144 |
| 118E       | 100.6  | December 17, 1997  | 0   | 5,144 |
| 021A       | 102.4  | December 27, 1997  | 0   | 5,134 |

|               |        |                    |   |       |
|---------------|--------|--------------------|---|-------|
| 118B          | 107.2  | June 9, 1998       | 0 | 4,970 |
| 177A          | 212    | July 2, 1998       | 0 | 4,947 |
| 1511-01       | 120.5  | July 18, 1998      | 0 | 4,931 |
| 118B          | 115.3  | September 22, 1998 | 0 | 4,865 |
| 118B          | 115    | September 22, 1998 | 0 | 4,865 |
| 210B          | 127.1  | September 27, 1998 | 0 | 4,860 |
| 136           | 108    | October 28, 1998   | 0 | 4,829 |
| 300B          | 258.5  | February 2, 1999   | 0 | 4,732 |
| SP3           | 117.5  | April 3, 1999      | 0 | 4,672 |
| 0645-01       | 106    | July 2, 1999       | 0 | 4,582 |
| 0645-01       | 107    | July 2, 1999       | 0 | 4,582 |
| 131           | 137.9  | August 18, 1999    | 0 | 4,535 |
| 131           | 138.2  | August 18, 1999    | 0 | 4,535 |
| 131           | 138.5  | August 18, 1999    | 0 | 4,535 |
| 131           | 138.52 | August 18, 1999    | 0 | 4,535 |
| 131           | 138.8  | August 18, 1999    | 0 | 4,535 |
| 131           | 137.6  | December 9, 1999   | 0 | 4,422 |
| 131           | 137.3  | December 9, 1999   | 0 | 4,422 |
| 131           | 137    | December 9, 1999   | 0 | 4,422 |
| 400           | 422    | December 22, 1999  | 0 | 4,409 |
| 303           | 131.7  | January 12, 2000   | 0 | 4,388 |
| 303           | 132    | January 12, 2000   | 0 | 4,388 |
| 303           | 131.9  | January 12, 2000   | 0 | 4,388 |
| 303           | 131.8  | January 12, 2000   | 0 | 4,388 |
| 306           | 133.6  | February 26, 2000  | 0 | 4,343 |
| 177A          | 158    | March 11, 2000     | 0 | 4,329 |
| 177A          | 158.2  | March 11, 2000     | 0 | 4,329 |
| 0405-01       | 116.65 | April 19, 2000     | 0 | 4,290 |
| 1615-04       | 106    | May 17, 2000       | 0 | 4,262 |
| 300B          | 264.5  | May 30, 2000       | 0 | 4,249 |
| 196B-1        | 201    | June 1, 2000       | 0 | 4,247 |
| 196B          | 101    | June 1, 2000       | 0 | 4,247 |
| 132           | 104.93 | July 1, 2000       | 0 | 4,217 |
| 1218-01       | 104.6  | November 4, 2000   | 0 | 4,091 |
| 1218-01       | 104    | November 4, 2000   | 0 | 4,091 |
| 1218-01       | 104.3  | November 4, 2000   | 0 | 4,091 |
| 108           | 130.1  | November 24, 2000  | 0 | 4,071 |
| 108           | 130.2  | November 24, 2000  | 0 | 4,071 |
| 306           | 134.3  | January 17, 2001   | 0 | 4,017 |
| 021E          | 123    | January 19, 2001   | 0 | 4,015 |
| 021E          | 125    | January 19, 2001   | 0 | 4,015 |
| 021E          | 198.2  | March 15, 2001     | 0 | 3,960 |
| 021E          | 198.5  | March 15, 2001     | 0 | 3,960 |
| 021E          | 198.5  | March 15, 2001     | 0 | 3,960 |
| 401           | 539    | April 5, 2001      | 0 | 3,939 |
| 401           | 538.3  | April 5, 2001      | 0 | 3,939 |
| 401           | 539.3  | April 5, 2001      | 0 | 3,939 |
| 1209-01       | 109    | April 24, 2001     | 0 | 3,920 |
| 1209-01       | 110    | April 24, 2001     | 0 | 3,920 |
| 057A-M15      | 101    | May 10, 2001       | 0 | 3,904 |
| 7221-10       | 115    | June 1, 2001       | 0 | 3,882 |
| 7221-10       | 113.3  | June 1, 2001       | 0 | 3,882 |
| 401           | 700    | June 22, 2001      | 0 | 3,861 |
| 300A          | 185.5  | July 1, 2001       | 0 | 3,852 |
| 210A          | 103.7  | July 1, 2001       | 0 | 3,852 |
| 131           | 145    | August 22, 2001    | 0 | 3,800 |
| 306           | 135.9  | December 15, 2001  | 0 | 3,685 |
| 306           | 136.5  | December 15, 2001  | 0 | 3,685 |
| 306           | 137.3  | December 15, 2001  | 0 | 3,685 |
| 177B          | 112.6  | January 29, 2002   | 0 | 3,640 |
| 118A          | 232.2  | February 13, 2002  | 0 | 3,625 |
| 131           | 145.1  | March 30, 2002     | 0 | 3,580 |
| 1519-01-110   | 110    | May 8, 2002        | 0 | 3,541 |
| 1519-01-110.3 | 110.3  | May 8, 2002        | 0 | 3,541 |
| 197A          | 117.5  | July 2, 2002       | 0 | 3,486 |
| 197A          | 117.7  | July 2, 2002       | 0 | 3,486 |
| 021F          | 111    | July 2, 2002       | 0 | 3,486 |
| DREG5442      | 101    | July 2, 2002       | 0 | 3,486 |
| 167           | 130.9  | July 6, 2002       | 0 | 3,482 |
| 021E          | 112.1  | August 14, 2002    | 0 | 3,443 |
| 301A          | 111.9  | October 1, 2002    | 0 | 3,395 |

|          |        |                   |   |       |
|----------|--------|-------------------|---|-------|
| 101      | 113.85 | October 16, 2002  | 0 | 3,380 |
| 210A     | 117.4  | October 25, 2002  | 0 | 3,371 |
| 210A     | 117.45 | October 25, 2002  | 0 | 3,371 |
| BD443    | 606    | October 25, 2002  | 0 | 3,371 |
| 210C-1   | 215    | October 30, 2002  | 0 | 3,366 |
| 118E     | 100.5  | February 26, 2003 | 0 | 3,247 |
| 210B     | 118.5  | March 28, 2003    | 0 | 3,217 |
| 210B     | 119    | March 28, 2003    | 0 | 3,217 |
| 210B     | 118.8  | March 28, 2003    | 0 | 3,217 |
| BD464    | 251.4  | May 18, 2003      | 0 | 3,166 |
| BD464    | 251.5  | May 18, 2003      | 0 | 3,166 |
| 401      | 594    | May 30, 2003      | 0 | 3,154 |
| 300B     | 260.1  | July 2, 2003      | 0 | 3,121 |
| 304      | 101.8  | July 23, 2003     | 0 | 3,100 |
| BD644    | 101    | July 23, 2003     | 0 | 3,100 |
| BD644    | 102    | July 23, 2003     | 0 | 3,100 |
| 131      | 145.2  | September 3, 2003 | 0 | 3,058 |
| BD26     | 100    | November 1, 2003  | 0 | 2,999 |
| BD26     | 101    | November 1, 2003  | 0 | 2,999 |
| 050A     | 190.2  | November 5, 2003  | 0 | 2,995 |
| 300A     | 166.0  | December 19, 2003 | 0 | 2,951 |
| 108      | 127    | March 26, 2004    | 0 | 2,853 |
| 108      | 127.3  | March 26, 2004    | 0 | 2,853 |
| 108      | 128    | March 26, 2004    | 0 | 2,853 |
| 200A-3   | 102.3  | April 1, 2004     | 0 | 2,847 |
| 200A-3   | 102    | April 1, 2004     | 0 | 2,847 |
| BD125    | 203    | May 1, 2004       | 0 | 2,817 |
| BD125    | 204    | May 1, 2004       | 0 | 2,817 |
| 1613-01  | 215    | July 1, 2004      | 0 | 2,756 |
| DREG4907 | 302    | July 1, 2004      | 0 | 2,756 |
| 0405-01  | 103.2  | July 13, 2004     | 0 | 2,744 |
| 177A     | 132    | July 15, 2004     | 0 | 2,742 |
| 177A     | 132.5  | July 15, 2004     | 0 | 2,742 |
| 177A     | 132.7  | July 15, 2004     | 0 | 2,742 |
| BD9431   | 102    | July 15, 2004     | 0 | 2,742 |
| BD9433   | 101    | July 15, 2004     | 0 | 2,742 |
| 2408-11  | 114.5  | July 21, 2004     | 0 | 2,736 |
| 142N     | 105    | August 13, 2004   | 0 | 2,713 |
| 142N     | 106    | August 13, 2004   | 0 | 2,713 |
| 200-244  | 155    | October 8, 2004   | 0 | 2,657 |
| 200-207  | 224    | October 8, 2004   | 0 | 2,657 |
| 200-209  | 226    | October 8, 2004   | 0 | 2,657 |
| 200-210  | 134    | October 8, 2004   | 0 | 2,657 |
| 200-245  | 130    | October 8, 2004   | 0 | 2,657 |
| DREG4892 | 504    | November 9, 2004  | 0 | 2,625 |
| 021H     | 126    | November 26, 2004 | 0 | 2,608 |
| 124A     | 111    | January 7, 2005   | 0 | 2,566 |
| 132      | 104    | March 31, 2005    | 0 | 2,483 |
| 1818-01  | 123    | April 12, 2005    | 0 | 2,471 |
| 1818-01  | 123.3  | April 12, 2005    | 0 | 2,471 |
| 1818-01  | 125    | April 12, 2005    | 0 | 2,471 |
| 300A     | 214    | June 2, 2005      | 0 | 2,420 |
| 300A     | 216    | July 1, 2005      | 0 | 2,391 |
| 300A     | 217    | July 1, 2005      | 0 | 2,391 |
| 300A     | 217.8  | July 1, 2005      | 0 | 2,391 |
| 300A     | 218.0  | July 1, 2005      | 0 | 2,391 |
| 300A     | 218.04 | July 1, 2005      | 0 | 2,391 |
| 050A     | 193    | July 1, 2005      | 0 | 2,391 |
| 7221-10  | 115.3  | July 1, 2005      | 0 | 2,391 |
| BD464    | 216.3  | July 1, 2005      | 0 | 2,391 |
| 210A     | 122.2  | July 13, 2005     | 0 | 2,379 |
| 210A     | 122.1  | July 13, 2005     | 0 | 2,379 |
| 210B     | 127.2  | July 13, 2005     | 0 | 2,379 |
| 210A     | 122    | July 13, 2005     | 0 | 2,379 |
| 210A     | 122.3  | July 13, 2005     | 0 | 2,379 |
| 2408-12  | 102.3  | November 3, 2005  | 0 | 2,266 |
| 2408-11  | 114.3  | November 3, 2005  | 0 | 2,266 |
| BD28     | 115    | November 5, 2005  | 0 | 2,264 |
| BD28     | 120    | November 5, 2005  | 0 | 2,264 |
| 138      | 133.2  | November 19, 2005 | 0 | 2,250 |
| 138      | 133.3  | November 19, 2005 | 0 | 2,250 |

|            |         |                    |   |       |
|------------|---------|--------------------|---|-------|
| 1209-01    | 111     | November 25, 2005  | 0 | 2,244 |
| 1209-01    | 112     | November 25, 2005  | 0 | 2,244 |
| 121        | 113     | February 3, 2006   | 0 | 2,174 |
| 177A       | 237     | February 3, 2006   | 0 | 2,174 |
| 300B       | 295.4   | April 14, 2006     | 0 | 2,104 |
| 2408-05    | 172     | May 31, 2006       | 0 | 2,057 |
| BD7984     | 100     | May 31, 2006       | 0 | 2,057 |
| BD7985     | 100     | May 31, 2006       | 0 | 2,057 |
| 2408-05    | 172.1   | May 31, 2006       | 0 | 2,057 |
| 197A       | 121.3   | July 2, 2006       | 0 | 2,025 |
| 306        | 139.2   | July 21, 2006      | 0 | 2,006 |
| 306        | 138.3   | July 21, 2006      | 0 | 2,006 |
| 174-1-1    | 113.3   | October 24, 2006   | 0 | 1,911 |
| 174-1-1    | 115     | October 24, 2006   | 0 | 1,911 |
| 174-1-1    | 115.2   | October 24, 2006   | 0 | 1,911 |
| 174-1-1    | 117     | October 24, 2006   | 0 | 1,911 |
| 303        | 126.15  | November 3, 2006   | 0 | 1,901 |
| 303        | 126.17  | November 3, 2006   | 0 | 1,901 |
| BD602      | 464     | November 20, 2006  | 0 | 1,884 |
| 124A       | 100.5   | December 23, 2006  | 0 | 1,851 |
| 124A       | 101.03  | December 23, 2006  | 0 | 1,851 |
| 124B       | 101.3   | December 23, 2006  | 0 | 1,851 |
| 124B       | 101.4   | December 23, 2006  | 0 | 1,851 |
| 118A       | 117.07  | January 30, 2007   | 0 | 1,813 |
| 1613-06    | 408     | February 2, 2007   | 0 | 1,810 |
| 123        | 116     | February 10, 2007  | 0 | 1,802 |
| 300A       | 368.2   | March 15, 2007     | 0 | 1,769 |
| 300A       | 368.3   | March 15, 2007     | 0 | 1,769 |
| 123        | 114.8   | April 20, 2007     | 0 | 1,733 |
| 1502-02    | 111.1   | April 27, 2007     | 0 | 1,726 |
| 123        | 114.91  | May 10, 2007       | 0 | 1,713 |
| 057B       | 110     | June 29, 2007      | 0 | 1,663 |
| 057A       | 103     | June 29, 2007      | 0 | 1,663 |
| 057A       | 103.5   | June 29, 2007      | 0 | 1,663 |
| 021A       | 108     | July 2, 2007       | 0 | 1,660 |
| 0210-01    | 112     | July 2, 2007       | 0 | 1,660 |
| 0210-01    | 112.1   | July 2, 2007       | 0 | 1,660 |
| 118D       | 102     | July 2, 2007       | 0 | 1,660 |
| 0210-01    | 111.5   | July 2, 2007       | 0 | 1,660 |
| 210A       | 121.7   | August 28, 2007    | 0 | 1,603 |
| 210A       | 122.4   | August 28, 2007    | 0 | 1,603 |
| DREG5459   | 122     | September 25, 2007 | 0 | 1,575 |
| 300A       | 391.1   | October 3, 2007    | 0 | 1,567 |
| 300B       | 280.5   | December 1, 2007   | 0 | 1,508 |
| 108        | 109     | February 5, 2008   | 0 | 1,442 |
| DREG5005   | 801     | February 26, 2008  | 0 | 1,421 |
| 123        | 114.3   | March 5, 2008      | 0 | 1,413 |
| 123        | 114.32  | March 5, 2008      | 0 | 1,413 |
| 123        | 114.35  | March 5, 2008      | 0 | 1,413 |
| STUB8189   | 551     | March 5, 2008      | 0 | 1,413 |
| 172A       | 163.3   | April 19, 2008     | 0 | 1,368 |
| 108        | 131     | May 27, 2008       | 0 | 1,330 |
| 300B       | 350     | June 21, 2008      | 0 | 1,305 |
| 118A       | 117.05  | June 28, 2008      | 0 | 1,298 |
| 002        | 156.7   | July 1, 2008       | 0 | 1,295 |
| 197C       | 111.85  | July 1, 2008       | 0 | 1,295 |
| 300B       | 188     | August 21, 2008    | 0 | 1,244 |
| 306        | 123.1   | September 20, 2008 | 0 | 1,214 |
| 300A       | 390.3   | October 11, 2008   | 0 | 1,193 |
| 300A       | 390     | October 11, 2008   | 0 | 1,193 |
| 300A       | 389.7   | October 11, 2008   | 0 | 1,193 |
| 300A       | 391     | October 11, 2008   | 0 | 1,193 |
| 124A       | 101.3   | November 19, 2008  | 0 | 1,154 |
| 124B       | 102.25  | November 26, 2008  | 0 | 1,147 |
| STUB6123   | 551     | November 26, 2008  | 0 | 1,147 |
| 138D       | 102     | December 18, 2008  | 0 | 1,125 |
| 118A       | 117     | February 7, 2009   | 0 | 1,074 |
| 300A       | 240.647 | May 2, 2009        | 0 | 990   |
| BD8996-101 | 101     | May 2, 2009        | 0 | 990   |
| BD8996-102 | 102     | May 2, 2009        | 0 | 990   |
| BD8997-101 | 101     | May 2, 2009        | 0 | 990   |

|            |        |                   |   |     |
|------------|--------|-------------------|---|-----|
| BD8997-102 | 102    | May 2, 2009       | 0 | 990 |
| 177A       | 191    | July 18, 2009     | 0 | 913 |
| 301B       | 115    | July 23, 2009     | 0 | 908 |
| 301B       | 114.6  | July 23, 2009     | 0 | 908 |
| 301C       | 100.1  | July 23, 2009     | 0 | 908 |
| 301C       | 101    | July 23, 2009     | 0 | 908 |
| 401        | 580    | November 20, 2009 | 0 | 788 |
| 401        | 580.1  | November 20, 2009 | 0 | 788 |
| 401        | 581    | November 20, 2009 | 0 | 788 |
| 401        | 580.3  | November 20, 2009 | 0 | 788 |
| 351        | 109    | January 30, 2010  | 0 | 717 |
| 108        | 167.1  | March 30, 2010    | 0 | 658 |
| 108        | 167.3  | March 30, 2010    | 0 | 658 |
| 108        | 167.5  | March 30, 2010    | 0 | 658 |
| 108        | 169.5  | March 30, 2010    | 0 | 658 |
| 108        | 169.7  | March 30, 2010    | 0 | 658 |
| 108        | 169.9  | March 30, 2010    | 0 | 658 |
| 021B       | 103    | April 16, 2010    | 0 | 641 |
| 1020-01    | 102.5  | April 20, 2010    | 0 | 637 |
| DRIP8609   | 100    | April 27, 2010    | 0 | 630 |
| 111A       | 100.8  | May 15, 2010      | 0 | 612 |
| 111A       | 101.2  | May 15, 2010      | 0 | 612 |
| 111A       | 101.4  | May 15, 2010      | 0 | 612 |
| 111A       | 101.6  | May 15, 2010      | 0 | 612 |
| 111A       | 101.8  | May 15, 2010      | 0 | 612 |
| 111A       | 102    | May 15, 2010      | 0 | 612 |
| 111A       | 101    | May 15, 2010      | 0 | 612 |
| 108        | 177.5  | June 1, 2010      | 0 | 595 |
| 108        | 178.1  | June 1, 2010      | 0 | 595 |
| 108        | 178.13 | June 1, 2010      | 0 | 595 |
| 108        | 178.15 | June 1, 2010      | 0 | 595 |
| 108        | 178.2  | June 1, 2010      | 0 | 595 |
| 108        | 178.4  | June 1, 2010      | 0 | 595 |
| 108        | 178.42 | June 1, 2010      | 0 | 595 |
| 108        | 178.45 | June 1, 2010      | 0 | 595 |
| 108        | 178.6  | June 1, 2010      | 0 | 595 |
| STUB9978   | 100    | June 1, 2010      | 0 | 595 |
| 177A       | 204    | July 11, 2010     | 0 | 555 |
| 142N       | 104    | August 10, 2010   | 0 | 525 |
| 142N       | 104.4  | August 10, 2010   | 0 | 525 |
| 101        | 112    | October 14, 2010  | 0 | 460 |
| 101        | 111.6  | October 14, 2010  | 0 | 460 |
| 101        | 111.65 | October 14, 2010  | 0 | 460 |
| 101        | 111.8  | October 14, 2010  | 0 | 460 |
| 101        | 111.7  | October 14, 2010  | 0 | 460 |
| 021H       | 124    | April 5, 2011     | 0 | 287 |

1,723,956

3,346,447

## Table of Violations and Offenses

| Summary of 49 CFR §192.619 Violations |                |                      |                                |                                 |
|---------------------------------------|----------------|----------------------|--------------------------------|---------------------------------|
| Route                                 | Segment Number | Violation Start Date | Pre-1/1/1994 Days in Violation | Post-1/1/1994 Days in Violation |
| 220                                   | 133.3          | January 1, 1971      | 8,400                          | 6,590                           |
| 300B                                  | 171.6          | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 172            | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 171.8          | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 260.15         | July 1, 1972         | 7,853                          | 6,590                           |
| 300A                                  | 166.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 167                                   | 126.2          | July 1, 1972         | 7,853                          | 6,590                           |
| 300A                                  | 167.5          | July 1, 1972         | 7,853                          | 6,590                           |
| 300B                                  | 375.6          | November 29, 1976    | 6,241                          | 6,590                           |
| 300A                                  | 344            | November 29, 1976    | 6,241                          | 6,590                           |
| 300A                                  | 345.1          | November 29, 1976    | 6,241                          | 6,590                           |
| 300B                                  | 255.5          | June 15, 1977        | 6,043                          | 6,590                           |
| 300A                                  | 385.5          | July 1, 1977         | 6,027                          | 6,590                           |
| 300B                                  | 375.7          | June 8, 1979         | 5,320                          | 6,590                           |
| 300A                                  | 345.2          | June 8, 1979         | 5,320                          | 6,590                           |
| 300A                                  | 345.3          | June 8, 1979         | 5,320                          | 6,590                           |
| 131                                   | 162.2          | May 29, 1986         | 2,773                          | 6,590                           |
| 131                                   | 162.8          | May 29, 1986         | 2,773                          | 6,590                           |
| 131                                   | 162.9          | May 29, 1986         | 2,773                          | 6,590                           |
| 400                                   | 386            | April 24, 1987       | 2,443                          | 6,590                           |
| 400                                   | 386.5          | April 24, 1987       | 2,443                          | 6,590                           |
| 300B                                  | 261.2          | July 2, 1987         | 2,374                          | 6,590                           |
| 300B                                  | 261.3          | July 2, 1987         | 2,374                          | 6,590                           |
| 300B                                  | 261.4          | July 2, 1987         | 2,374                          | 6,590                           |
| 107                                   | 151            | July 15, 1987        | 2,361                          | 6,590                           |
| 131                                   | 164            | July 15, 1987        | 2,361                          | 6,590                           |
| 300B                                  | 263.5          | December 16, 1988    | 1,841                          | 6,590                           |
| 300B                                  | 263.7          | December 16, 1988    | 1,841                          | 6,590                           |
| 300B                                  | 263.9          | December 16, 1988    | 1,841                          | 6,590                           |
| 300B                                  | 264.2          | December 16, 1988    | 1,841                          | 6,590                           |
| 300B                                  | 264.4          | December 16, 1988    | 1,841                          | 6,590                           |
| 300A                                  | 229.8          | January 21, 1991     | 1,075                          | 6,590                           |
| 300A                                  | 233            | January 21, 1991     | 1,075                          | 6,590                           |
| 300A                                  | 228.4          | February 12, 1991    | 1,053                          | 6,590                           |
| 300A                                  | 228.7          | February 12, 1991    | 1,053                          | 6,590                           |
| 300A                                  | 218.6          | July 2, 1991         | 913                            | 6,590                           |
| 300A                                  | 218.7          | July 2, 1991         | 913                            | 6,590                           |
| 300A                                  | 218.8          | July 2, 1991         | 913                            | 6,590                           |
| 300A                                  | 184.6          | December 7, 1991     | 755                            | 6,590                           |
| 300A                                  | 184.9          | December 7, 1991     | 755                            | 6,590                           |
| 300A                                  | 185            | December 7, 1991     | 755                            | 6,590                           |
| 300A                                  | 222.9          | July 1, 1992         | 548                            | 6,590                           |
| 300A                                  | 223.0          | July 1, 1992         | 548                            | 6,590                           |
| 300B                                  | 258.6          | February 7, 1997     | 0                              | 5,457                           |
| 300B                                  | 258.5          | February 2, 1999     | 0                              | 4,732                           |
| 300B                                  | 264.5          | May 30, 2000         | 0                              | 4,249                           |
| STUB10412                             | 551            | December 9, 2000     | 0                              | 4,056                           |
| 300A                                  | 185.5          | July 1, 2001         | 0                              | 3,852                           |
| 300B                                  | 260.1          | July 2, 2003         | 0                              | 3,121                           |
| 300A                                  | 251.2          | November 17, 2004    | 0                              | 2,617                           |
| 300A                                  | 252.1          | November 17, 2004    | 0                              | 2,617                           |
| 300A                                  | 214            | June 2, 2005         | 0                              | 2,420                           |
| 300A                                  | 216            | July 1, 2005         | 0                              | 2,391                           |
| 300A                                  | 217            | July 1, 2005         | 0                              | 2,391                           |
| 300A                                  | 217.8          | July 1, 2005         | 0                              | 2,391                           |
| 300A                                  | 218.0          | July 1, 2005         | 0                              | 2,391                           |
| 300A                                  | 218.04         | July 1, 2005         | 0                              | 2,391                           |
| 300B                                  | 295.4          | April 14, 2006       | 0                              | 2,104                           |
| 303                                   | 126.15         | November 3, 2006     | 0                              | 1,901                           |
| 303                                   | 126.17         | November 3, 2006     | 0                              | 1,901                           |
| 057B                                  | 110            | June 29, 2007        | 0                              | 1,663                           |
| 300B                                  | 280.5          | December 1, 2007     | 0                              | 1,508                           |
| 300B                                  | 350            | June 21, 2008        | 0                              | 1,305                           |

154,734

338,828