UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2

In the Matter of: Andrew B. Chase, a/k/a Andy Chase, Chase Services, Inc., Chase Convenience Stores, Inc., and Chase Commercial Land Development, Inc.,

Respondents.

Proceeding Under Section 9006 of the Solid Waste Disposal Act, as amended.

Honorable M. Lisa Buschmann,
Presiding Officer

Docket No. RCRA-02-2011-7503

DECLARATION OF PAUL M. SACKER IN SUPPORT OF ASSESSING THE PENALTY SOUGHT AGAINST RESPONDENTS IN EACH OF COUNTS 1 THROUGH 16, 18, 19 AND 21 OF THE COMPLAINT

PAUL M. SACKER, for his declaration pursuant to 28 U.S.C. § 1746, hereby states:

1. I am an environmental engineer with the United States Environmental Protection Agency (EPA or Agency), Region 2, and I work out of the EPA's New York City office. I am assigned to the Division of Environmental Enforcement and Compliance Assistance (DECA). The Complainant in this proceeding is the Director of DECA of EPA, Region 2.

2. I make this declaration in support of assessing the penalty sought against Respondents Andrew B. Chase, an individual a/k/a Andy Chase, Chase Services, Inc., Chase Convenience Stores, Inc., and Chase Commercial Land Development, Inc. (henceforth also collectively

referred to as "Chase") as set forth in the Complaint in this proceeding, bearing docket number RCRA-02-2011-7503, for counts 1 through 16, 18, 19 and 21, *i.e.* those counts for which this Court, in its June 21, 2012 "Order on Complainant's Motion for Partial Accelerated Decision," granted Complainant a judgment of liability with regard to the violations of 40 C.F.R. Part 280 requirements governing the operation, maintenance and closure of underground storage tanks (hereinafter also referred to as "USTs") at six retail gasoline stations in New York State, as set forth in each of those counts.

3. I make the statements in this declaration based upon knowledge and information I have acquired in the course of carrying out my duties and responsibilities at EPA, which include my having personally inspected two of the six gasoline stations in issue, my having reviewed the reports prepared Jeffrey Blair (who conducted inspections of all six stations at issue in this proceeding), inspected the my having reviewed and analyzed the documents filed by Respondents with the State of New York, my having prepared and reviewed documents EPA sent to Mr. Chase that sought information and records on USTs owned and/or operated by any of the respondents, my having reviewed and analyzed documents Mr. Chase sent in response to EPA's letters seeking information and documentation, my having helped to prepare (both in drafting and reviewing) the administrative complaint that commenced this proceeding, and my having determined (calculated) and reviewed the penalty amount sought for each of the 21 counts of the Complaint.

I. Education and Professional Experience

4. I hold a Bachelor of Engineering Degree in chemical engineering from the City College of the City University of New York. At EPA, Region 2, I am a member of the Underground Storage Tank Team, and I have been involved in UST work for approximately 15 years. During this time, in addition to my EPA duties and responsibilities that I discussed in my declaration of February 10, 2012, submitted as part of Complainant's motion for partial accelerated decision, I have calculated numerous penalties for UST enforcement actions for both myself and other members of the UST Team using the EPA's UST penalty guidelines. I have been involved in the preparation and enforcement of three administrative cases alleging violations of the Part 280 UST regulations other than this one, two civil referrals to the United States Department of Justice alleging such violations, and hundreds of expedited UST enforcement cases (field citations).

5. As a senior member of Region 2's enforcement team, I often serve as acting Team Leader, and in early 2010 I served full time as the Team Leader for 120 days. As part of my EPA duties and responsibilities, I provide training to less senior employees in understanding and applying the Part 280 regulations, and I often serve as a guide and informal information expert on these regulations, the EPA UST penalty guidance, and UST-related questions to other EPA staff. The EPA has recognized my work in this area, including awarding me a National Notable Achievement Award in 2008 for my work in promoting and fostering compliance with the Part 280 regulations and a bronze medal for work on a civil case in 2012.

6. I am familiar with the statutory provisions set forth in 42 U.S.C. §§ 6991 - 6991m and the regulations contained in 40 C.F.R. Part 280. This familiarity is essential for me to carry out my EPA duties and responsibilities as part of the Underground Storage Team, including conducting inspections, preparing information request letters, reviewing, analyzing and evaluating responses to such letters, and reviewing inspection reports of UST field inspections conducted by contractors and others. As part of my EPA work, I regularly consult these regulations, including when I evaluate whether a given owner's and/or operator's underground storage tank(s) complies with the requirements for the UST's operation, maintenance and closure as set forth in the 40 C.F.R. Part 280 regulations. A working knowledge is also a vital backdrop to the development and calculation of a penalty amount for an UST violation, and I use my familiarity with the applicable statutory provisions in developing, calculating and reviewing penalty amounts sought for UST violations.

7. I am familiar with the "U.S. EPA Penalty Guidance For Violations of UST Regulations OSWER Directive 9610.12 November 14, 1990" and all supplements and additions. This familiarity is essential for me to carry out my EPA duties and responsibilities as part of the Underground Storage Team, including calculating fair and reasonable penalties in support of UST enforcement actions (hereinafter, I will refer to this document as the "UST penalty guidance"). I regularly consult and rely upon the UST penalty guidance whenever I am tasked to calculate a penalty amount for an UST violation(s), as I did in this proceeding. A copy of the UST penalty guidance is attached to this declaration as Exhibit A.

8. The purpose of the UST penalty guidance is set forth on page 2, in the section labeled Chapter 1, "Introduction to UST Penalty Guidance":

> This document provides guidance to [EPA]...Regional Offices on calculating civil penalties against owner/operators of underground storage tanks (USTs) who are in violation of the UST technical standards and financial responsibility regulations. The methodology described in this guidance seeks to ensure that UST civil penalties, which can be as high as $10,000 [amount subsequently increased] for each tank for each day of violation, are assessed in a fair and consistent manner, and that such penalties serve to deter potential violators and assist in achieving compliance.

9. I have trained and advised other EPA employees in applying the UST Penalty Guidance in the preparation of UST penalty calculations. I am also the foremost user within Region 2 of EPA of the UST Penalty Calculator program that we use to calculate the gravity component of our UST penalties and am an experienced user of the Enforcement Economic Model called BEN which calculates the economic benefit component of our penalties. These will be described with greater specificity below. I also train and advise other EPA employees in the use of these programs.

II. Authority for Assessing UST Penalties

10. EPA's authority for seeking and assessing civil penalties for violations of the substantive UST requirements applicable to owners and operators of underground storage tanks is set forth in 42 U.S.C. § 6991e. Sub-paragraph "c" provides that EPA may assess a penalty for

a violation of an UST requirement "which the Administrator determines is reasonable taking into account the seriousness of the violation and any good faith efforts to comply with the applicable requirements."

11. Sub-paragraph "d" of that section provides that "[a]ny owner or operator of an underground storage tank who fails to comply with...any requirement or standard promulgated by the [EPA] Administrator under [42 U.S.C. §] 6991b...shall be subject to a civil penalty not to exceed $10,000 for each tank for each day of violation." 42 U.S.C. § 6991(d)(2)(A). As noted in paragraph 7 of the Complaint, that amount has been increased to $11,000 for any violation that occurred between January 30, 1997 and January 12, 2009, and to $16,000 for any violation that occurred subsequent to January 12, 2009.

12. Sub-paragraph "e" of that section, 42 U.S.C. § 6991e(e), provides that EPA may, in determining a penalty for an UST violation under sub-paragraph "d," additionally take into account the following two factors: "[t]he compliance history of an [UST] owner or operator," and "[a]ny other factor [EPA] considers appropriate."

13. The statutory factors set forth in 42 U.S.C. § 6991e are incorporated into the UST penalty guidance, and in Region 2 a penalty developed using the directions set forth in the UST penalty guidance reflects, and gives due consideration to, the seriousness of a violation(s) and the owner's and/or operator's good faith efforts to comply with applicable UST requirements; in

addition, the UST penalty guidance includes consideration of a number of other factors, including the history of compliance by the owner and/or operator.

14. As will be discussed more fully below, the amounts sought for the penalties in those counts remaining at issue in this proceeding (counts 1 through 16, 18, 19 and 21) are reasonable, and in the development of each such penalty EPA, Region 2, took into account the seriousness of the applicable violation and any good faith efforts by Respondents to comply with the applicable 40 C.F.R. Part 280 regulatory requirements. Given that EPA had no prior record regarding Respondents' compliance history (*i.e.* compliance history prior to the violations found by the Court) and, other than a few relatively inconsequential factors discussed below, EPA is unaware of other specific factors that are or would be appropriate to consider in making a penalty determination or that would be relevant in developing and determining an appropriate penalty amount for the counts in issue.

III. Calculating an UST Penalty: Initial Steps

15. When seeking to assess a penalty for an UST violation, I first determine the duration of a given violation, *i.e.* how long a violation lasts. As noted above, the statute authorizing EPA to assess a penalty for UST violations allows for a penalty assessment for each day that a violation continues. I thus must determine, based on the evidence EPA possesses, when the violation(s) began and when the violation(s) ended. The start date can be dependent on a number of factors depending on the violation alleged and the evidence EPA has obtained. In Region 2,

we do not go back any further than five years prior to the issuance of the complaint, and, in this proceeding, that means the relevant earliest date was April 2006. The end date is either the day the facility is known to have come into compliance or, for continuing violations, is set as the last time we received any information from the facility. The duration of a violation(s) is also considered in conjunction with application of the "days of noncompliance multiplier," which is discussed in Section 3.4 of the UST penalty guidance, and which I will address below along with other factors that affect these gravity penalty calculations.

16. Once I have the duration of a violation, I calculate the economic benefit component of the penalty using the Enforcement Economic program called BEN (rather than an alternative approach allowed under the UST penalty guidance where the economic benefit is initially estimated to be low). As stated in the UST penalty guidance, "to ensure that the penalty deters potential violators, the initial penalty target figure assessed in the complaint must include two fundamental components." Exhibit A, Chapter 2, "Determining The Economic Benefit Component." (The two components of a penalty are the economic benefit component and the gravity-based component).

17. The economic benefit component is intended to negate any significant economic gain or advantage that a violator might realize as a result of failing to comply with an UST regulatory requirement. As stated in the UST penalty guidance:

> The economic benefit component represents the economic advantage that a violator has gained by delaying capital and/or non-depreciable costs and by avoiding operational and maintenance costs associated with compliance. The

> total economic benefit component is based on the benefit from two sources: (1) avoided costs; and (2) delayed costs. All penalties assessed must include the full economic benefit unless the benefit is determined to be 'incidental' (*i.e.*, less than $100).

18. While avoided costs represent "the periodic, operation and maintenance expenditures that should have been incurred but were not[,]" delayed costs are defined in the UST penalty guidance as "the expenditures that have been deferred by the violation, but will be incurred to achieve compliance."

19. The BEN model is described in Exhibit A, Section 2.1, where it states:

> The BEN model, which is accessible by computer from anywhere in the country, uses a financial analysis technique known as 'discounting' to determine the net present value of economic gains from noncompliance. BEN determines the economic benefit for an individual violator based on 12 specific factors, or inputs, including the violator's initial capital investment, nondepreciable expenditures, and operation and maintenance costs. For some inputs, such as income tax rate, annual inflation rate, and discount rate, BEN will provide standard values if the user does not have actual figures. This use of standard values allows for national consistency in determining economic benefit.

20. I determine the base parameters such as corporation type, proposed penalty payment date (I used December 31, 2011 for this case) and create entries for each violation. First I put in the date when the violation began (or the date when EPA considers the violation began for purposes of penalty assessment) and the date when the violation ceased or was corrected. Then I determine what costs were avoided or deferred by a respondent in not having complied with the applicable requirement. These costs include any capital investments, one-time, non-depreciable expenditures and annually recurring costs; as part of making this determination, I decide what

date should be used to derive a time-value of the costs. Once all data are in place, I push the calculate button and the economic benefit figure is provided. Many times the economic benefit result obtained may be of a value less than the amount of the avoided expenditures and costs that I input into the BEN model. This reflects a number of factors that the BEN model uses in determining the economic benefit, including inflation rates and pro-rated time periods. It also may reflect the fact that an expenditure has been deferred rather than completely avoided.

IV. Calculating an UST Penalty, Generally: The Gravity-Based Component

21. The next step is to determine the gravity-based component of the penalty. As noted in Exhibit A, Chapter 3, "Determining The Gravity-Based Component," of the UST penalty guidance, this component "serves to deter potential violators." Further, this component is intended "to ensure that violators are economically disadvantaged relative to owner/operators of those facilities in compliance, and to penalize current and/or past noncompliance." Four elements make up the gravity-based component: a) the matrix value; b) violator-specific adjustments to the matrix value; c) the environmental sensitivity multiplier (ESM); and d) the days of noncompliance multiplier (DNM). Together, the gravity-based component and the economic benefit component constitute an initial penalty target figure.

22. The first thing I do in determining an appropriate gravity-based component for an UST violation is to determine an initial matrix value. Each such value is determined based upon two factors: a) the extent of deviation and the b) potential for harm. As noted in Section 3.1 of

the UST penalty guidance, "Determining The Matrix Value," the extent of deviation represents an "assessment of the extent to which the violation deviates from the UST statutory or regulatory requirements." The potential for harm factor represents an "assessment of the likelihood that the violation could (or did) result in harm to human health or the environment and/or has (or had) an adverse effect on the regulatory program." A determination of each factor for any given UST violation necessarily involves my having to exercise discretion depending on the full range of facts and circumstances pertaining to any given violation. I also use the guidance for classifying violations of different UST regulations found in Appendix A of the UST penalty guidance, "Matrix Values for Selected Violations of Federal Underground Storage Tank Regulations").

23. There are three classifications for each of the extent of deviation and the potential for harm: Minor, Moderate or Major. Each of these criteria represents an axis in a grid, the extent of deviation being the horizontal axis, the potential for harm serving as the vertical axis. This grid thus has nine separate boxes (or cells), each one representing the intersection of a specific classification for extent of deviation and for potential for harm. For example, at the upper left of the grid is the Major/Major or cell, while at the lower right is the intersection for the Minor/Minor cell. In total, there are nine potential levels of matrix value, each of which has a specified monetary value. For example, Major/Major cell indicates has a base value of $1,500. This means that, where a given UST violation is determined to have both a major extent of deviation and a major potential for harm, the base value (or the initial determination of the gravity-based component) is $1,500.

24. Each matrix value may be further increased to a higher value based on the period of time in which a violation occurred. This is done to take account of inflation. As I have previously noted, for any violation that occurred during the period of January 30, 1997 and January 12, 2009, the matrix value is inflated by a factor of 1.2895 (see exhibit number 2 listed on EPA's November 2011 initial prehearing exchange; I will subsequently refer to this prehearing exchange as "EPA-PHE"); for violations that occurred after January 12, 2009, the matrix values are inflated by factor of 1.4163 (see exhibit numbers 3 and 4 of the EPA-PHE). These values originate from EPA amendments to the original penalty guidance. The total is always rounded to the nearest 10. Should a violation period cross these inflation periods, a proportional rate is used which considers how many days of violation occurred during each period.

25. Depending on the specific violation at issue, the initial matrix value may be further modified depending on additional considerations, *i.e.* whether the violation is to be assessed on a per-tank (or how many tanks the piping [lines] are associated with) basis, or whether it is to be assessed on a per-facility basis. Where appropriate, I multiply the initial matrix value based on the number of tanks or associated lines. For some violations (*e.g.,* failure to maintain release detection records) the UST penalty guidance provides that the penalty is to be assessed on a per-facility basis. This is one area that calls for individualized judgment in assessing a penalty: some violations may, in conjunction with the guidance, be assessed on either a per tank/line or per facility.

26. The UST penalty guidance provides information on whether a penalty should be assessed on a per-tank or per facility basis. In Section 3.1, it states:

> Based on the type of violation...penalties will be assessed on a per-tank basis if the specific requirement or violation is clearly associated with one tank (e.g., tank upgrading). If the requirement addresses the entire facility (e.g., recordkeeping practices), the penalty will be assessed on a per-facility basis. For requirements that address piping, the unit of assessment will depend on whether the piping is associated with one tank or with more than one tank. Appendix A indicates the suggested unit of assessment for specific violations.

27. The next step is to determine if any violator-specific adjustments need to be made. These are addressed in Section 3.2 of the UST penalty guidance, "Violator-Specific Adjustments." These adjustments involve the exercise of discretion by enforcement personnel (such as myself), and invoking them entails an evaluation of the facts and circumstances surrounding an UST violation. The UST guidance states:

> In general, adjustments to the matrix value may be made at both the pre-negotiation and settlement stages of penalty assessment to address the unique facts of each case and to resolve the case quickly. Prior to settlement negotiations, enforcement personnel have the discretion to use any relevant information to adjust the matrix value upwards or downwards. These adjustments are solely at the discretion of EPA enforcement personnel.
>
> Specifically, to ensure that penalties are assessed in a fair and consistent manner, and take into account case-specific differences, enforcement personnel have the option of adjusting the matrix value based on any information known about the violator's: (1) degree of cooperation or noncooperation; (2) degree of willfulness or negligence; (3) history of noncompliance; and (4) other unique factors.

28. The degree of cooperation/non-cooperation can result in raising the gravity-based penalty component by as much as 50% or lowering it 25%; the degree of willfulness or

negligence also can result in increasing the amount by 50% or lowering it by 25%. As for a respondent's history of non-compliance, the UST penalty guidance indicates only an upward adjustment, of up to 50%. Recognizing that some factors defy facile categorization, the guidance provides for consideration of "other unique factors," and these may result in an upward adjustment of up to 50% or a downward adjustment of 25%.

29. The UST penalty guidance discusses these four considerations in greater detail in the following sections: Section 3.2.1., degree of cooperation/non-cooperation; Section 3.2.2., degree of willfulness or negligence; Section 3.3.3., history of non-compliance; and Section 3.2.4., other unique factors.

30. The next factor to be considered under the UST penalty guidance is the Environmental Sensitivity Multiplier (ESM). Essentially, this factor considers whether a facility holding underground storage tanks that are alleged to be in violation overlies or is situated in an environmentally sensitive area that may be negatively impacted by a release from such a tank. This is discussed in Section 3.3 of the UST penalty guidance, "Environmental Sensitivity Multiplier (ESM)". This section states, in part:

> In addition to the violator-specific adjustments discussed above, enforcement personnel may make a further adjustment to the matrix value based on potential site-specific impacts that could be caused by the violation. The environmental sensitivity multiplier takes into account the adverse environmental effects that the violation may have had, given the sensitivity of the local area to damage posed by a potential or actual release.

31. The ESM is distinct from the potential for harm, and its inclusion in the determination of an appropriate gravity-based penalty component does not represent EPA considering the same factor twice. The UST guidance explains:

> This factor differs from the potential-for-harm factor...which takes into account the **probability** that a release or other harmful action **would occur** because of the violation. The environmental sensitivity multiplier addressed here looks at the **actual or potential impact** that such a release, once it **did occur**, would have on the local environment and public health [emphases in original].

32. The appropriate ESM adjustment is a function of the sensitivity of the environment. There are three classifications of environmental sensitivity: low, moderate or high. A low ESM is assigned a value of 1; a moderate ESM is assigned a value of 1.5; and a high ESM is assigned a value of 2.0. Some of the factors considered in attempting to assign an appropriate ESM value in the making of the gravity-based penalty determination include the amount of petroleum or other hazardous substances that was released or might be released, the toxicity of the petroleum or other hazardous substance in question and the potential hazards created by the release or potential release from a tank (or a multitude of tanks). To make the determination as to the appropriate ESM classification, EPA enforcement personnel necessarily must exercise judgment and discretion, basing any such decision on the attendant facts and circumstances of the violation.

33. In Region 2, when considering which ESM classification to assign for an UST violation, the focus is on the location of groundwater supplies in relation to the facility. EPA, Region 2, employs a geographic information system (GIS) mapping program into which the

address of the facility in question is inputted. This program then generates whether the facility is situated over or near any drinking water supplies or underground bodies of water. When a facility is not located over a significant groundwater supply, the ESM is assigned a 1. If the GIS mapping indicates the facility is located atop a primary aquifer, the assigned ESM is 1.5. This is because primary aquifers are vulnerable or fragile water bodies that are or may be used for drinking water supplies or for irrigation of crops. Releases from USTs that might end up in these bodies of groundwater can have long-term detrimental effects because contamination with petroleum products can be toxic to humans, animals, crops; thus the higher ESM is assigned. If the GIS indicates the facility overlies a New York State Source Water Protection Area, the assigned ESM is 2. This is because the waters in these areas are within the contribution zone for a drinking intake and are highly sensitive and vulnerable to contamination. As noted above, a release from an UST that contaminates these areas can lead to exposure of the public or the environment. Contamination of these water bodies are not just potential threats but represent actual current threats, and thus the highest ESM (2) is justified.

34. For this case, Stations I, V and VI were found via the GIS mapping program not to overlie any sensitive area, and an ESM of 1 was accordingly used in the penalty calculations for violations that occurred at any of these stations. Stations II and III were found to overlie a primary aquifer and thus an ESM of 1.5 was assigned in the penalty calculations for violations that occurred at either of these two stations; the 1.5 ESM designation indicates there is a higher risk of harm to vulnerable water supplies if a release from an UST occurred at either Station II or

III. Station IV was found to overlie a New York State Source Water Protection Area, and an ESM of 2 was thus assigned in the penalty calculations for violations that occurred at this station. An ESM of 2 is the maximum ESM designation under the UST penalty guidance, and this elevated ESM represents that there exists the highest risk of contamination to public drinking water supplies if a release from an underground storage tank were to have occurred at Station IV.

35. The final step in developing the gravity-based component of an UST penalty is to determine the Days of Noncompliance Multiplier (DNM). This factor reflects the length (*i.e.* the number of days) of the violator's non-compliance with the applicable statutory or regulatory requirement. As stated in the UST penalty guidance, Exhibit A, in Section 3.4, "Days Of Noncompliance Multiplier," "The final adjustment that may be made to the matrix value takes into account the number of days of noncompliance."

36. Section 3.4 provides a table used to reflect different durations of a violation and to determine the extent of the DNM adjustment. The DNM is assigned a value of 1 for violations that last up to the first 90 days; a value of 1.5 for the next 90 days; a value of 2.0 for days 181 through 270; and for days 271 through 365, a value of 2.5. Beyond 365 days (a calendar year), each additional period of up to six months increases the DNM value by 0.5. For example, for a violation lasting two years, the DNM would be 3.5. Where a violation occurs more than once (for example, where a respondent failed to comply for one year, then complied with the applicable requirement, and then failed anew to comply with the same requirement), for the latter

(new) violation, I start the clock back at zero for the second occurrence, and develop a separate DNM for each occurrence.

37. Once these factors are all determined, as per the UST penalty guidance, "[t]he DNM is then multiplied by the adjusted matrix value and environmental sensitivity multiplier to obtain the gravity-based component of the penalty...." At that point, the guidance then notes that "[t]he economic benefit component is added to the gravity-based component to form the initial penalty target figure to be assessed in the complaint." As required by the governing statute and as noted in the UST penalty guidance, the initial penalty target cannot exceed the statutory limit (as amended) for each underground storage tank for each day of violation. 42 U.S.C. § 6991e(d)(2).

38. At EPA, Region 2, once all of these factors have been individually determined, the calculation set forth in the guidance (the adjusted matrix value multiplied by the ESM multiplied by the DNM, with the economic benefit component added to that figure) is made using a computer program in order to arrive at an initial penalty target figure. I input the numbers into a computer program and the program generates the initial target penalty figure. The computer program adheres to the steps set forth in the UST guidance, and the program is set up to generate (print out) a spreadsheet which shows all the steps of developing the penalty. These spreadsheets were appended to EPA's prehearing exchange and will be discussed below in the context of the individual counts in this case.

39. The above paragraphs (¶s 14 through 33, 35 through 38) illustrate how I develop a penalty amount listed in a complaint alleging an UST violation, either of a statutory or regulatory (40 C.F.R. Part 280) requirement. I followed these procedures in developing the penalty amount for each count of the Complaint in this proceeding, including those counts that remain in issue in this matter and for which EPA now seeks to obtain a judgment (counts 1 through 16, 18, 19 and 21).

40. I will briefly discuss each of these counts below but, in order not to be repetitious, I will not go into the detail already set forth above. I did, however, follow the steps set forth above in developing the initial penalty target figure (*i.e.* the amount listed in each count of the Complaint issued in this proceeding) for each of the counts remaining in contention.

41. For all my penalty calculations for the UST violations this Court found, I have relied upon the UST penalty guidance to ensure that the statutory requirements — that a penalty for an UST violation be reasonable when measured against the seriousness of that violation and the violator's good faith to comply with the applicable statutory or regulatory requirement — have been met and satisfied. The UST penalty guidance is not an end in itself, but a means to provide both guidance to ensure compliance with the statutorily mandated conditions and attempt to ensure that UST penalty calculations are appropriate and fair and, to the extent warranted by circumstances, consistent, and the factors it lists as guidance in developing a penalty amount for

UST violations reflect those factors EPA is required to consider for UST violations (42 U.S.C. § 6991e(c)) and those factors EPA may consider (42 U.S.C. § 6991e(e)).

V. Development of the Penalty: The Amounts at Issue

42. The penalty amounts that remain at issue and which are in dispute pertain to counts 1 through 16, 18, 19 and 21. For each of these counts I have followed the steps detailed above in the development of the penalty sought; I have used the UST penalty guidance to assist me in making the determination for a fair, rational and appropriate penalty for each of the counts in issue in this matter. I have used the guidance to ensure that each of the relevant penalties is consistent with and complies with the statutory mandate that penalties for UST violations be reasonable when measured against the seriousness of the violation and any good faith efforts to comply with the applicable UST requirements.

43. As will be explained in greater detail below, I believe now, as I believed when I first developed the penalties, that the amount sought for each count meets the statutory provision that each such penalty be "reasonable taking into account the seriousness of the violation and any good faith efforts to comply with the applicable requirements." I believe now, as I believed when I developed these penalties, that the amounts sought for the respective violations were both reasonable and appropriate when measured against all the facts and circumstances and in light of the particular purposes and objectives underlying the respective regulatory requirements

Respondents violated. I will discuss and detail the specifics below, for each count (or groupings of similar/related counts).

44. So as not to be unduly repetitious, I will not address the counts of the complaint that remain in contention in the order in which they appear in the complaint, but in a way in which I can simultaneously address similar violations that existed at multiple service stations so that those facts and circumstances that existed or occurred at more than one service station can be simultaneously discussed. For example, the failure to conduct the annual automatic line leak detector violation occurred at each of the six service stations, and these will be addressed together.

A. Failure to Conduct Annual Test of the Operation of the

Automatic Line Leak Detector (Counts 2, 8, 10, 13, 15, and 18)

45. As this Court found, Respondents (either Mr. Chase individually or Mr. Chase together with one of the corporate respondents) failed to conduct annual testing of the operation of the automatic line leak detector (also subsequently referred to as the "ALLD") associated with underground piping (*i.e.* such piping is equipped with an ALLD) that is connected to underground storage tanks. In accordance with 40 C.F.R. 280.41(b)(1)(i), underground storage tanks with pressurized piping (delivery systems) must be equipped with automatic line leak

detectors, and these ALLDs must be tested annually in accordance with 40 C.F.R. 280.44(a). This violation occurred at each of the six service stations in this proceeding.

46. In accordance with the guidance in the UST penalty guidance, Subpart D ("Release Detection") of Appendix A, "Matrix Values for Selected Violations of Federal Underground Storage Tank Regulations," in Exhibit A, a violation of 40 C.F.R. § 280.44(a) a failure to conduct these tests as required by the regulations is classified as constituting a "Major" Extent of Deviation from the applicable requirements and a "Major" Potential for Harm. As a consequence of these classifications, the matrix value was initially set at $1,500. For any violation that occurred during the period March 15, 2004 through January 12, 2009, that value has been increased, to account for inflation, to $1,930. After January 12, 2009, it has been again increased, again to account for inflation, to $2,120 (Exhibit 4 to EPA-PHE; while the document misprinted the figure as $2,130, it should properly read "$2,120"). Further, any violation of this provision is assessed on a per line basis (*i.e.* a separate assessment is calculated for each of the pipes that had been equipped with an ALLD).

47. For each of the six counts of the complaint citing this violation, I determined the start date of the violation in the following manner. Where Respondents provided no evidence of an ALLD test has ever having occurred, I check the records (principally the PBS applications, which I discussed in my February 2012 declaration in support of EPA's motion for accelerated

decision on liability, paragraphs 18 through 44) to determine when an underground storage tank(s) had been installed.

48. If a tank had been installed prior to December 22, 1988, the tank was part of what is defined under 40 C.F.R. § 280.12 as an "existing tank system, "and its piping was required to have been equipped with an ALLD by no later than December 22, 1998; accordingly, I used this date as the benchmark date to assume installation of an ALLD. For any such tank, the first annual test was consequently required to have occurred within one year, *i.e.* by no later than December 22, 1999, and a follow-up test was then required by the end of each ensuing calendar year (by December 22, 2000, December 22, 2001, etc.). For purposes of determining the duration of the violation, I looked back no more than five years, so for USTs that were part of an existing tank system the earliest date I used for the start of a violation was December 22, 2006, which date is the closest test date to five years prior to issuance of the complaint.

49. For tanks installed after December 22, 1988 (and which would therefore be part of what is defined as a "new tank system" under 40 C.F.R. § 280.12), pressurized piping attached to such a tank was required to be equipped with an automatic line leak detector upon installation of the tank; accordingly, I assumed that the actual installation date of the tank was the date of the installation of the ALLD. Accordingly, the first annual test of the operation of the ALLD on such piping had to occur within, and no later than, one year after the installation date, with each subsequent test required to be conducted within one calendar year thereafter. For example, if a

tank had been installed on April 1, 2002, the first test of the operation of the associated ALLD had to occur by April 1, 2003. For tanks with an installation date after December 22, 1998, I began calculating the period of violation using the first ALLD test due date that fell after April 1, 2006, which date was five years prior to the issuance of the Complaint.

50. Where I have evidence that an ALLD test had not been performed within a calendar year period following an earlier test, I use as the start date for purposes of determining the duration of this subsequent failure (and thus for determining an appropriate penalty) the date that is one calendar year from the date of the prior test. To illustrate this with a hypothetical example: assume that an annual testing of the operation of the automatic line leak detector occurred (whether timely or belatedly is irrelevant for illustrating this concept) on July 1, 2007. Thus, the next such annual test must have occurred by, and no later than, July 1, 2008. If we assume that the next test, however, was not conducted by July 1, 2008 but instead on December 1, 2008, then for this failure, I calculate that the period of violation commenced on July 1, 2008. (See the discussion below concerning count 2, where two separate failures to conduct the annual ALLD testing occurred).

51. In order to determine the economic benefit resulting from a failure to conduct a timely ALLD test, I used an annually recurring cost of $150 for each line test, and I input this figure for each line test into the BEN model. This is the estimated cost for a standard annual ALLD test based on my understanding of prevailing rates — the amount Respondents would

have to spend each year, per line, to test the ALLDs. This was the cost Respondents avoided and/or deferred. Capital investments or one-time, non-depreciable expenditures are not applicable in this calculation, and a value of zero for each was input into the BEN model.

52. I will now address in the following paragraphs how I calculated the penalty for each separate failure of Respondents to have conducted the annual test of the operation of the automatic line leak detectors. I will discuss the various factors that went into the calculation for each of these six violations (counts 2, 8, 10, 13, 15 and 18).

1. Count 2 — Station I

53. This count involves two separate failures to conduct the required annual testing of the operation of the automatic line leak detector for two pressurized pipes (pipes are also referred to as "lines") on the dual-compartmentalized tank (in essence two tanks, one identified with number 006A and the other with number 006B), at Station I (referred to in EPA's papers as Service Station I). These tanks contained gasoline.

54. Count 2 involves two separate occurrences of violations, one for an initial failure of Respondent Andrew Chase to conduct an annual ALLD test for the period beginning May 1, 2006 (I chose this date as the initial start date because these tanks had been installed on May 1,

1999, and thus an annual ALLD test had to be conducted by May 1st of each of the following years) and ending when such a test was finally conducted on April 22, 2009; the second occurrence of this violation occurred during the time period between April 22, 2010 (the next due date for the ALLD test since a test had been conducted April 22, 2009) and September 7, 2010 (the date the next ALLD test had been conducted).

55. For the first occurrence of the violation (*i.e.* the May 1, 2006 through April 22, 2009 period), the economic benefit was calculated as $741. For the gravity-based component, there were 1,088 days of noncompliance, and, as a consequence, I determined, in accordance with Section 3.4 of the UST penalty guidance, the DNM to be 4.5. Because most of the period of violation occurred before January 12, 2009, the penalty calculation program set the revised matrix value of $1,930 for the entire period. As I had no evidence that would have warranted violator-specific adjustments, no such adjustments were made to the matrix value. I applied an ESM of 1 (which did not alter the calculation). See the discussion in paragraphs 33 and 34, above. The resulting gravity-based component for Mr. Chase's failure to have conducted an annual test of the operation of the ALLD during this May 1, 2006 to April 2009 period became **$17,370**, which, when added to the economic benefit amount, resulted in a total penalty for this specific period of **$18,111**.

56. For the second occurrence of this violation (*i.e.* occurring during the period between April 22, 2010 and September 7, 2010), the economic benefit was calculated as $75. For the

gravity-based component, because there were 139 days of non-compliance, I determined the DNM to be 1.5; as with the earlier occurrence, no violator-specific adjustments to the matrix value were made; and the assigned ESM was 1. The penalty computation model that I used set the inflated matrix value of $2,120 for the whole period as the violation occurred entirely after January 12, 2009. The resulting gravity-based component became **$6,360**, to which the economic benefit component was added, resulting in a total penalty for the latter violation of **$6,435**.

57. Adding the penalty amount determined for the earlier and later occurrences, I derived the total penalty for count 2 to be **$24,546**. I refer the Court to Complainant's Initial Prehearing Exchange, dated November 11, 2011 (I will subsequently refer to this document as "EPA's PHE," exhibit 32, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 2.

2. Count 8 — Station II

58. This count involves violations involving separate underground storage tanks at Station II during the period between September 1, 2006 and April 6, 2009: Respondents (Mr. Chase and Chase Convenience Store, Inc.) failed to conduct an annual ALLD test for the two pressurized lines on the compartmentalized gasoline tank (identified as tank number 001A and tank number 001B) and the pressurized line for the diesel fuel tank (identified as tank number

002). The beginning of this time period, September 1, 2006, is based upon the installation of these tanks and their three pressurized lines (September 1, 1998; thus annual tests were required every year by, and no later than, September 1st); the end point corresponds to the time that ALLD testing for these lines occurred (April 6, 2009).

59. The economic benefit was calculated as $970. For the gravity-based component, there were 949 days of noncompliance, and, as a consequence, I determined, in accordance with Section 3.4 of the UST penalty guidance, the DNM to be 4.5. For the period of September 1, 2006 through January 12, 2009, the equivalent of a DNM of 4.0, the penalty computation model I used set the matrix value at $1,930. For the last DNM increment of 0.5, which occurred after January 12, 2009, the penalty computation model assessed the matrix value at $2,120. As with count 2, as I did not have evidence warranting violator-specific adjustments, no such adjustments were made to the matrix value. I applied an ESM of 1.5 (as I described above in paragraphs 33 and 34). The resulting gravity-based component for the failure to have conducted annual testing of the operation of the ALLD during this September 2006 to April 2009 period became **$39,520.**

60. When this **$39,520** figure is added to the economic benefit component, the resulting penalty for these ALLD violations in count 8 became **$40,480**. I refer the Court to EPA's PHE, exhibit 38, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 8.

3. Count 10 — Station III

61. This count involves violations at Station III during the period between November 1, 2006 and April 6, 2009: Respondent Andrew B. Chase failed to conduct an annual ALLD test for the two pressurized lines connected to the gasoline tanks identified as tank number 001 and tank number 002. As these two tanks and their associated pressurized lines had been installed on November 1, 1995, I selected November 1, 2006 as the start date, and the end date was the date of the April 6, 2009 ALLD test.

62. The economic benefit was calculated as $604. For the gravity-based component, there were 888 days of noncompliance, and, as a consequence, I determined, in accordance with Section 3.4 of the UST penalty guidance, the DNM to be 4. As most of this period came before January 12, 2009, the penalty computation model I used set the matrix value at $1,920 for the whole period. As with the prior counts, since I did not have evidence warranting violator-specific adjustments, no such adjustments were made to the matrix value. I assessed an ESM of 1.5 (paragraphs 33 and 34, above). The resulting gravity-based component for the failure to have conducted annual testing of the operation of the ALLD during this November 2006 to April 2009 period was **$23,160.**

63. Putting together the gravity-based figure of **$23,160** with the economic benefit amount of **$604** yields a penalty for the count 10 violations of **$23,764**. I refer the Court to

EPA's PHE, exhibit 40, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 10.

4. Count 13 — Station IV

64. This count involves two separate occurrences of violations at Station IV. Respondents (Mr. Chase and Chase Services, Inc.) failed to conduct an annual test of the operation of the automatic line leak detectors as follows: a) for the period between April 1, 2006 and April 6, 2009, for the pressurized line connected to the diesel tank (identified as tank 001A), and b) for the period between June 1, 2006 and April 6, 2009, for two pressurized lines connected to the dual-compartmentalized gasoline tank system (identified as tank number 003A and tank number 003B). For the diesel tank, I used the April 1, 2006 date as the start date of one violation, as the tank and its associated pressurized line had been installed on April 1, 1992; for the gasoline tanks, I used the June 1, 2006 date as the start of the violation, since the tanks and their associated pressurized piping had been installed on June 1, 2003.

65. For the pressurized lines (pipes) associated with the diesel tank: The economic benefit was calculated as $376. For the gravity-based component, there were 1,102 days of noncompliance, and, as a consequence, I determined, in accordance with Section 3.4 of the UST penalty guidance, the DNM to be 5. For the period between April 1, 2006 and January 12, 2009,

the equivalent of a DNM of 4.5, the penalty computation model I used set the matrix value at $1,930. For the last DNM increment of 0.5, which was the period after January 12, 2009, the penalty computation model assessed the matrix value at $2,120. Again, as with the prior counts, since I did not have evidence warranting violator-specific adjustments, no such adjustments were made to the matrix value. I assessed an ESM of 2 (paragraphs 33 and 34, above). The resulting gravity-based component for the failure to have conducted annual testing of the operation of the ALLD during the April 1, 2006 to April 2009 period was **$19,490.** Putting together the gravity-based figure of **$19,490** with the economic benefit amount of **$376** yields a penalty for this part of count 13 of **$19,866**.

66. For the pressurized piping associated with the gasoline tanks: The economic benefit was calculated as $710. For the gravity-based component, there were 1,041 days of noncompliance (fewer than the diesel line because these lines were installed several months later), and, as a consequence of that length of time, I determined, in accordance with the Section 3.4 of the UST penalty guidance, the DNM to be 4. The penalty computation model I used set the matrix value at $1,930 for the entire period. Again, as with the prior counts, since I did not have evidence warranting violator-specific adjustments, no such adjustments were made to the matrix value. I assessed an ESM of 2 (paragraphs 33 and 34, above). The resulting gravity-based component for the failure to have conducted annual testing of the operation of the ALLD during the June 1, 2006 to April 2009 period was **$34,740.** Putting together the gravity-based

figure of **$34,740** with the economic benefit amount of **$710** yields a penalty for this part of count 13 of **$35,450**.

67. I then added the numbers for each separate occurrence (**$19,866** and **$35,450**), and this yielded a total penalty for count 13 of **$55,316**. I refer the Court to EPA's PHE, exhibit 43, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 13.

5. Count 15 — Station V

68. This count concerns violations at Station V occurring during the time period between November 1, 2006 and April 6, 2009. Respondents (Mr. Chase and Chase Commercial Land Development, Inc.) failed to conduct an annual test of the operation of the automatic line leak detectors as follows: a) for the two pressurized lines for the dual-compartment gasoline tanks (tank number 001A and tank number 001B), and b) for the pressurized pipe connected to the diesel tank (tank number 002A). Thus there were three separate violations, pertaining to three separate lines connected to USTs. I chose as the start date November 1, 2006 because these tanks and their connected piping had been installed on November 1, 2001, and thus an annual test of the operation of the ALLD for each line was required by November 1st of each following year. As with the other counts involving ALLD violations, the end date represents the date for

which Respondents provided me with a record indicating when an ALLD test had been conducted on particular lines.

69. The economic benefit was calculated as $906. For the gravity-based component, there were 888 days of noncompliance, and, as a consequence, I determined, in accordance with Section 3.4 of the UST penalty guidance, the DNM to be 4. The penalty computation model I used set the matrix value of $1,930 for the entire period. As with the prior counts, since I did not have evidence warranting violator-specific adjustments, no such adjustments were made to the matrix value. I assessed an ESM of 1. The resulting gravity-based component for the failure to have conducted annual testing of the operation of the ALLD during this November 2006 to April 2009 period was **$23,160**.

70. Putting together the gravity-based figure of **$23,160** with the economic benefit amount of **$906** yields a penalty for the count 15 violations of **$24,066**. I refer the Court to EPA's PHE, exhibit 45, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 15.

6. Count 18 — Station VI

71. This count involves violations that occurred at Station VI between December 31, 2008 and September 7, 2010. Respondent Andrew B. Chase failed to conduct an annual test of the operation of the ALLD for the two pressurized lines for the dual-compartment gasoline tanks (identified as tank number 3A and tank number 3B) and the pressurized pipe connected to the diesel tank (identified as tank number 1). Thus this count entails overall violations pertaining to three separate lines. I chose December 31, 2008 as the start date, and an end date of September 7, 2010. December 31, 2008 was the initial start date used, as the tanks and their three associated pressurized lines were installed on December 31, 2007; the end date represents, as with the other violations, the date listed on evidence Respondents provided to EPA indicating when such annual ALLD tests had occurred.

72. The economic benefit was calculated as $501. For the gravity-based component, there were 616 days of noncompliance, and, as a consequence, I determined, in accordance with Section 3.4 of the UST penalty guidance, the DNM to be 3.5. For the period of December 31, 2008 through January 12, 2009, which covers the first 90 days of this violation's occurrence, the penalty computation model I used set a DNM of 1 and set the matrix value at $1,930. For the period after January 12, 2009, the penalty computation model used the remaining DNM, totaling 2.5, and set the matrix value at $2,120. As with the prior counts, since I did not have evidence warranting violator-specific adjustments, no such adjustments were made to the matrix value. I

assessed an ESM of 1. The resulting gravity-based component for the failure to have conducted annual testing of the operation of the ALLD during this December 2008 to September 2010 period was **$21,690**.

73. Putting together the gravity-based figure of **$21,690** with the economic benefit amount of **$501** yields a penalty for the count 18 violations of **$22,191**. I refer the Court to EPA's PHE, exhibit 48, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 18.

7. Significance of the ALLD Requirements

74. I believe the penalty sought for each of the six counts involving ALLD violations to be reasonable, and especially so when considered against the backdrop of the seriousness of these violations and the overall lack of good faith efforts by Respondents to comply with the applicable UST requirements.

75. The total penalty for all six counts involving Respondents' failures (either Mr. Chase individually, or Mr. Chase together with one of the corporate respondents) to conduct annual testing of the operation of the automatic line leak detectors is **$190,363**, which as noted above,

breaks down accordingly: **a)** for count 2, $24,546 (based on two separate occurrences, for which the penalties are $18,111 and $6,435); **b)** for count 8, $40,480; **c)** for count 10, $23,764; **d)** for count 13, $59,316 (based on two separate occurrences, for which the penalties are $19,866 and $35,450); **e)** for count 15, $24,066; and **f)** for count 18, $22,191.

76. A properly functioning automatic line leak detector is a key aspect to ensuring that underground storage tanks holding substances such as gasoline or diesel fuel are operated in an environmentally safe and responsible manner and that leaks from pipes connected to such tanks are detected and immediately responded to. An ALLD in proper working condition is a critical component to ensuring that UST systems are operated and maintained in compliance with the requirements set forth in 40 C.F.R. Part 280. An ALLD constitutes the first line of defense in preventing a release of the contents of an UST system that uses pressurized piping to deliver product to customers. Piping is an important source of releases that occur from UST systems, and an automatic line leak detector serves as a primary defense against leaking pipes and helps prevent releases from an underground storage tank's pressurized piping from getting into the environment.

77. As I have previously stated, in my February 10, 2012 declaration (paragraph 59), "[a]n automatic line leak detector is at the interface of a tank and its piping and is intended to shut off the pump associated with an UST as soon as a release is detected in a pipe through a pressure drop." An ALLD must be designed to alert an operator to the presence of a leak by

restricting or shutting off the flow of regulated substances through piping or triggering an audible or visual alarm and must detect leaks of three gallons per hour at 10 pounds per square inch line pressure within one hour. The annual test of the operation of the leak detector required by 40 C.F.R. § 280.44(a) is necessary to ensure that the ALLD is indeed capable of detecting such a release. An ALLD that is not functioning properly, or fails to detect a drop in pressure while an UST is being used to pump product, such as gasoline or diesel fuel, to a customer, creates a significant risk that a leak will not be prevented. The risk of a release to the environment is greatest during the active use of the pressurized pump of an underground storage tank to deliver product to a customer, as the product is under pressure and is being forced through the system. A leak in the piping could potentially propel this product at high pressure into the environment, and this could occur repeatedly over the course of a day as the UST is accessed. An automatic line leak detector is essential to the responsible and environmentally safe operation of underground storage tank systems in which gasoline, diesel fuel, kerosene or the like is contained.

78. To serve this purpose, an ALLD must be in proper working order, and to ensure that, it must be tested at least once a year. If an automatic line leak detector is not tested regularly, there is an elevated risk that it will not function as intended, and this increases the risk that, were a leak to occur in a pressurized pipe, the material held by the associated tank would enter the environment. If an ALLD test is not tested regularly, the chances become that much greater,

and, with such a failure, a whole series of adverse and potential dangerous consequences might follow from a leak of a substance like gasoline or diesel fuel.

79. The tanks in question in counts 2, 8, 10, 13, 15 and 18 contained either gasoline or diesel fuel. These were not small tanks, and they could hold significant amount of these fuels. The respective capacities were: **a)** for count 2 (at Station I), tanks 006A and 006B had a combined capacity of 15,000 gallon; **b)** for count 8 (at Station II), tanks 001A and 001B had a combined capacity of 15,000 gallons, while tank 002 had a capacity of 12,000 gallons; **c)** for count 10 (at Station III), tanks 001 and 002 had a combined capacity of 15,000 gallons; **d)** for count 13 (at Station IV), tanks 003A and 003B had a combined capacity of 15,000 gallons, while tank 001A had a capacity of 9,000 gallons; **e)** for count 15 (at Station V), tank 001A and tank 001B had a combined capacity of 15,000 gallons while tank 002A had a capacity of 6,000 gallons; and **f)** for count 18 (at Station VI), tank 1 had a capacity of 10,000 gallons while tanks 3A and 3B had a combined capacity of 4,000 gallons. Overall, these tanks had a total capacity of nearly 120,000 gallons.

80. As is well known, gasoline and diesel fuel are flammable, and each is highly poisonous and extremely dangerous to human, animal and plant life, as well as to the health and well-being and functioning of natural ecosystems. The toxicity of each has been abundantly established and documented.

81. I am familiar with the area in which the six gasoline stations at issue are situated. I have been to the area a number of times to conduct UST inspections, including the August 2010 inspection I conducted of Stations I and VI. The area where the stations are located, in northern New York State, is essentially a rural area, with a mixture of residences, some commercial development and agriculture. Gasoline or diesel fuel that spills, leaks, seeps or otherwise contaminates any of these areas would be harmful, whether that be fumes in basement home (which would include the dangers of explosion), seepage into streams, lakes or waterways, seepage into areas where crops are grown for consumption, or contamination of surrounding media such as soil. These substances are hydrocarbons that are not naturally found, that are intended for specific use (essentially motor vehicle transportation) and that are quite harmful to humans and other biological entities.

8. The ALLD Violations and the Statutory Criteria for Penalties

82. In light of these factors, and based upon my years of working at EPA, Region 2, in the UST field, I believe the penalties EPA's complaint seeks for each of these six counts are reasonable. I have described the serious nature and potential for harm associated with such ALLD violations, and the seriousness of these violations is amplified and compounded by the extended period of time that these violations occurred, periods marked by Mr. Chase's inattentiveness and neglect, if not outright disregard, for the regulatory requirements that the operation of an automatic line leak detector be regularly (annually) tested.

83. For count 2, there were two such protracted periods of failure to conduct the required test: the first ran for (at least) over three years (April 1, 2006 through April 22, 2009) and possibly longer than that, as Mr. Chase was unable to show any evidence that he ever conducted ALLD tests between the time he took over operation of the USTs at this facility and the EPA inspections, while the second ran for nearly five months (April 22, 2010 through September 7, 2010). For count 8, the period ran for (at least) over two and one-half years (September 1, 2006 through April 6, 2009) and possibly longer than that (as again the evidence indicates no ALLD tests were ever conducted). For counts 10 and 15, the period ran for (at least) nearly two and one-half years (from November 1, 2006 through April 6, 2009) and possibly longer than that (again, the evidence indicates no ALLD tests were ever conducted). For count 13, there were two separate violations involving different tank systems: one period ran for (at least) over three years (from April 1, 2006 to April 6, 2009) and the other period ran for (at least) almost three years (from June 1, 2006 to April 6, 2009), and, in both situations, possibly longer than these periods (as again the evidence indicates no ALLD tests were ever conducted). For count 18, the period ran for over 21 months (from December 31, 2008, one year after the USTs at this station were installed, to September 7, 2010).

84. In light of the nature of the ALLD violations and the lengthy period of time over which these violations occurred, and their concomitant potential to engender serious danger to human health and harm to the environment, the seriousness of these violations should be clear

and self-evident. Not only is an ALLD violation a serious violation, given all that may follow from the possibility of an ALLD not functioning as intended, but this seriousness is magnified when the non-compliance is left uncorrected for a number of different underground storage tanks at six retail stations for periods ranging from nearly five months (for a repeat violation) to over three years (for several of the violations).

85. Another factor that goes to the question of the relative seriousness of the violations is the ESM, or environmental sensitivity multiplier. As noted above in paragraphs 33 and 34, if the GIS mapping indicates the facility is located atop a primary aquifer, the assigned ESM is 1.5. This is because primary aquifers are sensitive and vulnerable water bodies that may be used for drinking water supplies. If the GIS indicates the facility overlies a New York State Source Water Protection Area, the assigned ESM is 2. This is because these areas are used as sources of drinking water and are considered highly vulnerable to contamination.

86. In this case, Stations I, V and VI were found via GIS mapping program not to overlie any identified environmentally sensitive area, and, accordingly, I assigned to them an ESM of 1. Because Stations II and III were found to overlie a primary aquifer (which, as discussed earlier, consists of sensitive and vulnerable bodies of water that might be utilized to provide drinking water), I assigned an ESM of 1.5 for violations occurring at each of these stations (with regard to the ALLD violations, counts 8 and 10). Because Station IV was found through the GIS mapping program to overlie a New York State Source Water Protection Area (which, as described earlier,

is an area having bodies of water from which drinking water supplies are drawn and which are deemed to be highly vulnerable to contamination), I assigned an ESM of 2 for the violations that occurred at this station (which, for the ALLD violations, was count 13).

87. The prolonged lengths of the non-compliance by Mr. Chase and the corporate respondents (the latter for counts 8, 13 and 15) attest to their lack of good faith efforts to comply. Whether this lack of non-compliance was the result of lack of awareness of the regulatory requirements, indifference to them, lack of concern, simple disregard or cost economizing, I do not know, but I do know there were, as detailed in paragraphs 83 and 84, above, extended periods when no efforts were made to comply with the 40 C.F.R. Part 280 requirement to conduct an annual test of the operation of the ALLDs employed in conjunction with pressurized piping connected to underground storage tanks containing petroleum-based motor fuels such as gasoline or diesel fuel.

88. The absence of such good faith efforts to comply is highlighted by several facts. The earliest any of the ALLD tests had been conducted occurred in April 2009, nearly nine months after the first of Mr. Blair's inspections (as noted in paragraph 10 of my February 2012 declaration). These first ALLD tests occurred (April 6, 2009) shortly after EPA had issued to Mr. Chase the first of several information request letters (paragraph 12 of my February 2012 declaration), and these letters specifically inquired about annual ALLD performance tests (paragraph 61 of my February 2012 declaration).

89. Even after Mr. Chase had express notice of the ALLD test requirements, he still failed to conduct such tests at Stations I and VI. The second violation at Station I (count 2), running for the period April 22, 2010 through September 7, 2010, occurred even though an ALLD test had been performed for the piping on that same tank system in April 2009.

90. All these facts attest that Respondents did not attach a high priority to timely complying with the ALLD annual testing requirements, and that lack of priority and concern demonstrates that Respondents' good faith efforts to comply were minimal, at best.

91. Given all these factors, I believe now, as I believed when I initially reviewed the record and developed the complaint, that each of the penalties sought in counts 2, 8, 10, 13, 15 and 18 is reasonable and appropriate given the nature and length of the violations and other attendant circumstances: each of these is justified and warranted based on the serious nature of the ALLD violations and the overall lack of good faith efforts by Mr. Chase and (for counts 8, 13 and 15) corporate respondents to comply with what the regulations required regarding ALLD testing. These were significant violations, and they merit significant penalties. I believe with a reasonable degree of confidence, based upon my years as a Region 2 employee involved in UST matters, that each of these penalties satisfies the standards set forth in 42 U.S.C. § 6991e.

B. Failure to Conduct Release Detection on Piping (Counts 1 and 19)

92. For count 1 (Station I) and count 19 (Station VI), Respondent Andrew B. Chase failed to conduct required release detection on pressurized piping. For the former, the violations pertained to the pressurized piping connected to tank number 006A and tank number 006B, which tank system contained gasoline; for the count 19 violations, the violations pertained to the pressurized piping connected to tank number 1 (which contained diesel fuel) and to the pressurized piping connected to tank numbers 3A and tank number 3B (which contained gasoline).

93. Forty C.F.R. § 280.41(b)(1)(ii) requires that owners or operators of underground storage tanks with pressurized delivery systems (piping) conduct either an annual line tightness test or monthly monitoring. This regulation is part of the overall requirements concerning release detection. If monthly monitoring is chosen to meet this requirement, the method used must be properly conducted in accordance with 40 C.F.R. §§ 280.43 and 280.44(c), and proper records of the method used must be kept for at least 12 months.

94. For count 1, Mr. Chase failed to conduct either an annual line tightness test or, in the alternative, monthly monitoring. For count 19, Mr. Chase failed to properly and adequately conduct monthly monitoring, the alternative chosen at Station VI to carry out the release detection requirement. Under the UST penalty guidance, either failure is classified as having a

Major extent of deviation and a Major potential for harm. See Exhibit A attached to this declaration, the UST penalty guidance, Subpart D ("Release Detection") of Appendix A, "Matrix Values for Selected Violations of Federal Underground Storage Tank Regulations." Any such failure is assessed on a per-line (per individual pipe) basis.

1. Count 1 — Station I

95. As previously noted, this count involved two pressurized lines. I chose April 24, 2008 as the start date for these violations, which is the date 12 months prior to the date of the August 24, 2009 inspection of Station I (the start of the period when Mr. Chase was required by the Part 280 regulations to maintain evidence — records — of monthly release detection monitoring). The end date for this violation that I chose was December 15, 2010, which is the date of Mr. Chase's last response to an EPA information request letter. Mr. Chase in that December 15, 2010 response failed to provide evidence of having conducted a line tightness test or monthly monitoring records. (He had also earlier failed to provide evidence of any testing in response to prior EPA information request letters in April 2009, October 2009 and September 2010, and also in response to e-mails that I had sent to him in January 2010 and November 2010; this is noted in paragraph 58 of my February 2012 declaration.) I also wish to note that in paragraphs 57 and 58 of my February 2012 declaration, I stated that I had received the results of a December 10, 2010 line tightness test as part of the December 15, 2010 fax. In re-checking my files, however, I find that there is no evidence of this test. As a result, to date EPA has no line

tightness test on record for this facility (Station I). Thus, December 15 2010 is the correct end date to use to calculate the penalty for this violation, as I have no proof of non-compliance after that date. Moreover, even if the December 10, 2010 date were used in this calculation, that would have no impact on the DNM or the gravity component calculation.

96. For the economic benefit, I used an avoided annual recurring costs of $100 per line into the model. This is the estimated cost for conducting an annual line tightness test based on prevalent rates. No capital investments or one-time, non-depreciable expenditures were used. The economic benefit was calculated as **$374**.

97. For the gravity-based component, there were 966 days of non-compliance, and, as a consequence, in accordance with the UST penalty guidance, I determined the total DNM to be 4.5. For the period of April 24, 2008 through January 12, 2009, the part of the DNM was set by the penalty calculation computer model as 2.0, and the matrix value was increased to $1,930; for the remainder of this period the DNM was set as 2.5 and the computer model increased the matrix value to $2,120. No violator-specific adjustments to the matrix value were made as I had no evidence warranting any such adjustment. I assessed an ESM of 1 (see paragraphs 33 and 34, above). These factors resulted in a gravity-based component of **$18,320**.

98. Putting together the gravity-based amount of **$18,320** and the economic benefit amount o **$374**, I derived a total penalty for count 1 at Station I of **$18,694**. I refer the Court to

EPA's PHE, exhibit 31, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 1.

2. Count 19 — Station VI

99. As previously noted, this count involved three pressurized lines. I chose August 24, 2009 as the start date for this violation, which is the date 12 months prior to the date of the August 24, 2010 inspection of Station VI. It was at this inspection where I discovered that the release detection methods used (both the electronic interstitial monitoring and the manual interstitial monitoring) were inadequately operated, and the evidence indicated that this violation went back at least 12 months prior to my August 24, 2010 inspection. The end date that I chose for this violation December 15, 2010, which is the date of Respondent Mr. Chase's last response to an EPA information request letter concerning this facility and release detection monitoring for the pressurized piping. Respondent Mr. Chase did not in that December 2010 response adequately provide evidence of repairs to release detection system for the pressurized piping. I discussed the chronology of events concerning this count in paragraphs 136 though 147 of my February 2012 declaration.

100. For the economic benefit, I used a one-time, non-depreciable expenditure of $600, and this was the figure I input into the BEN model. This is the estimated cost for repairing the

sump sensors used to conduct release detection for the pressurized piping and for cleaning out the sump pits. No capital investments or avoided annual recurring costs were used. The economic benefit was calculated as **$15**.

101. For the gravity-based component, there were 479 days of non-compliance, and, as a consequence, in accordance with the UST penalty guidance, I determined the DNM to be 3. As the entire violation period occurs after January 12, 2009, the penalty calculator program I used set the matrix value as $2,120 for the whole period. No violator-specific adjustments to the matrix value were made as I had no evidence warranting any such adjustment. I assessed an ESM of 1 (see paragraphs 33 and 34, above). These factors resulted in a gravity-based component of **$19,080**.

102. Putting together the gravity-based amount of **$19,080** and the economic benefit amount of **$15**, I derived a total penalty for count 19 at Station VI of **$19,095**. I refer the Court to EPA's PHE, exhibit 49, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 19.

3. Significance of the Release Detection Requirements for Piping

103. I believe the penalty sought for each of the two counts involving violations related to the failure to conduct annual line tightness testing or monthly monitoring to be reasonable, and they are indeed so when measured against the seriousness of these violations and the overall lack of good faith efforts by Respondents to comply with the applicable UST requirements.

104. The total penalty for these two counts regarding these failures by Mr. Chase to conduct the required testing/monitoring is **$37,789**, which as noted above, breaks down accordingly: **a)** for count 1, $18,694; and **b)** for count 19, $19,095.

105. Release detection requirements, including testing to ensure that equipment designed to prevent releases and/or alert the owner/operator to a release(s), constitute the very heart of the Part 280 regulations: these requirements represent core requirements, a vital component in the regulatory scheme to prevent, or at least minimize, releases of regulated substances such as gasoline or diesel fuel to the environment. Release detection is a key preventive measure to achieve the goal underlying the Part 280 regulations: to ensure the safe and environmentally responsible maintenance and operation of underground storage tanks, a really salient concern given their overall ubiquity throughout the United States.

106. The importance of the 40 C.F.R. Part 280 release detection measures to protect human health and the environment cannot be over-emphasized. These provisions serve as a vital linchpin to the overall Part 280 regulatory scheme.

4. The Annual Line Tightness Test/Monthly Monitoring Requirement Violations and the Statutory Criteria for Assessing Penalties

107. Given the circumstances surrounding these two violations and given my accumulated experiences working with UST matters at EPA, Region 2, I believe the penalties EPA's complaint seeks for each of these two counts are reasonable. I have in the prior paragraphs discussed the serious nature and potential for harm of these violations. What especially justifies the penalties for each of these counts is the protracted periods of time over which these violations continued, a factor that magnified the serious nature of these violations. Mr. Chase, as the owner and operator of the underground storage tanks at each of Stations I and VI, disregarded the requirement for the annual line tightness test or the monthly monitoring requirement for considerable periods of time.

108. For count 1, this violation extended for nearly 1,000 days, more than two and one-half years and potentially occurred for a period longer than this. This violation, as previously noted, involved two separate pressurized lines (piping). For count 19, the period in which Mr.

Chase failed to comply with the regulatory requirement lasted nearly 500 days, some 16 months; this violation involved three separate pressurized lines.

109. Against the importance of the need for an UST owner or operator to conduct annual line tightness tests or to conduct monthly monitoring, and the consequences that might ensue if non-compliance continues (consequences these requirements were meant to prevent or mitigate), the seriousness of these violations should be apparent, especially when, as in each of these two counts, not one but multiple lines of pressurized piping were involved. Indeed, because these are pressurized lines that conveyed gasoline (counts 1 and 19) and diesel fuel (count 19), a leak might have resulted in the loss of substantial amounts of these motor fuels. Further, the potential for loss was even greater because of the capacity of the tank systems involved. In count 1, the capacity of the UST system involved was 15,000 gallons, while in count 19 the total capacity of the tanks connected to the three lines was 27,000 gallons.

110. With a failure of release detection, an undetected release could very well have resulted in the spill of vast amounts of toxic and flammable motor fuel into the environment.

111. The prolonged lengths of Mr. Chase's non-compliance with the annual line tightness/monthly monitoring requirement (and I deem Mr. Chase having provided me with erroneous records of manual interstitial monitoring as non-compliance, as I discussed in paragraph 142 of my February 2012 declaration) demonstrate a pronounced lack of good faith

efforts to comply. For extended periods of time, continuing over two and one-half years for one set of violations (count 1), and involving several separate pressurized lines, Mr. Chase did not properly comply with the 40 C.F.R. Part 280 requirement to do what was required of him as the owner and operators of the UST systems at Stations I and VI; much of that failure consisted of simply not doing anything.

112. The chronology underlying the development of this proceeding underscores the overall lack of good faith efforts to comply. Mr. Chase had express written notice of the requirement for annual line tightness testing or monthly monitoring requirement since at least April 2009 (when EPA sent the information request letter, as noted in paragraph 58 of my earlier declaration). With regard to the violation found for count 1, Mr. Chase also had notice of this regulatory requirement at the time of the April 2009 inspection of Station I (as noted in paragraph 25 of the January 25, 2012 declaration of Jeffrey Blair also submitted as part of EPA's February 2012 motion for partial accelerated decision). As I noted in paragraph 58 of my declaration, on at least six occasions Mr. Chase was advised of the need to conduct one of these procedures, but he never produced evidence of his complying with the applicable regulation up through his December 15, 2010 information request letter response. With regard to the violation cited in count 1 of the complaint, EPA's numerous information request letters sought evidence of release detection or annual testing for the pressurized piping at Station I, but Mr. Chase never produced any evidence of this, and in Mr. Chase's last response to an EPA information request (in December 2010), he failed to address the annual line tightness test/monthly monitoring issue

at Station I (again, as I previously noted in paragraph 95, above, paragraphs 57 and 58 of my February 2012 declaration citing receipt of the results of a December 10, 2010 line tightness test are incorrect). With regard to the violation cited in count 19, the September 2010 information request letter specifically inquired about the situation regarding Station VI, and in response Mr. Chase provided records with erroneous information (paragraph 142 of my February 2012 declaration), and in Mr. Chase's last response to an EPA information request (December 2010), he failed to address the annual line tightness test/monthly monitoring issue at Station VI (paragraph 146 of my February 2012 declaration).

113. These facts can only demonstrate that promptly and correctly complying with the 40 C.F.R. Part 280 requirement for annual line tightness testing/monthly monitoring was not a priority for Mr. Chase, and such inattention goes directly to the issue of whether he made good faith efforts to comply with a mandatory provision of the UST regulations. As with the ALLD violations, whatever good faith efforts to comply existed were minimal, at most.

114. I believe now, as I believed when I initially reviewed the record and developed the complaint, that each of the penalties sought in counts 1 and 19 is reasonable and appropriate in light of all circumstances surrounding Mr. Chase's failure to properly and timely comply with these requirements, including the nature of the violations, their extended nature and those minimal and belated efforts by him to attain compliance. There is a valid and supportable basis for each of these penalties: each of them is amply justified and warranted based on the serious

nature of the violations and the overall lack of good faith efforts by Mr. Chase to effect compliance. These were violations of important provisions of the UST regulatory universe, and they call for significant penalties. I believe with a reasonable degree of confidence, based upon my years as a Region 2 employee involved in UST matters, that each of these penalties satisfies the standards set forth in 42 U.S.C. § 6991e.

C. Failure to Comply with Temporary Closure Requirements (Counts 4, 5, 6 and 7)

115. Counts 4, 5, 6 and 7 involve violations of the requirements concerning one underground storage tank that had been temporarily taken out of service, and these provisions are found at 40 C.F.R. § 280.70. These violations concern tank number 008 at Station I, a tank with a capacity of 550 gallons and which had contained kerosene. This tank was temporarily taken out of service after April 2008 and was removed from service in November 2009. At the time of the April 2009 inspection of Station I, tank 008 contained 31.5 inches of residue, which was kerosene (paragraphs 33 and 34 of the January 2012 Blair declaration).

116. The violations found by this Court cited in these four counts involve the following four regulatory provisions: Under 40 C.F.R. § 280.70(a), the owners or operators of underground storage tanks that are temporarily closed are required to maintain both release detection (unless the tank is emptied to no more than one inch of product or 0.3 percent by weight of the total capacity of the UST system remains in the system) and corrosion protection.

Further, an owner or operator of a tank that remains in temporary closure for more than three months is required to cap and secure such tank in accordance with 40 C.F.R. § 280.70(b). In addition, as required by 40 C.F.R. § 280.70(c), owners or operators of tanks that remain in temporary closure for more than one year and that do not meet either the performance standards in 40 C.F.R. § 280.20 for new UST systems or the upgrading requirements in 40 C.F.R. § 280.21 (excepting the spill and overfill equipment requirements) are required to permanently close such tanks.

117. The UST penalty guidance suggests the appropriate gravity-based component of the penalty for the violations covered by 40 C.F.R. § 280.70. See Exhibit A, Subpart G ("Out-of-Service UST Systems and Closure") of Appendix A of the exhibit. Accordingly: **a)** a failure to maintain release detection in a temporarily closed tank is classified as involving a Major extent of deviation from the applicable requirements and also a Major potential for harm; **b)** a failure to maintain corrosion protection in a temporarily closed tank is classified as a Major extent of deviation from the applicable requirements and Moderate for potential for harm; **c)** a violation of the requirement to cap and secure an UST in temporary closure for more than three months is classified as a Major extent of deviation from the applicable requirements and Moderate for potential for harm; and **d)** a violation of the provision mandating permanent closure for tanks temporarily closed for more than one year is classified as a Major extent of deviation from the applicable requirements and Major for potential for harm. Under the guidance, each of these four types of violations is assessed (calculated) on either a per-tank basis or a per-facility basis at

the discretion of EPA. Since counts 4 through 7 involve only one tank, this choice is not relevant and had no impact on the penalty calculations.

1. Count 4 — Station I (Failure to Maintain Release Detection)

118. I chose April 30, 2008 as the start date for the violation in this count, which is based upon Respondents' admission in their January 2010 response to EPA's information request letter that tank number 008 was out of service since April 2008. I originally set the end date for this violation as November 30, 2009, which is the date when Mr. Chase permanently closed this tank. See Exhibit 34 of EPA's PHE, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 4. However, in reviewing the records to prepare this declaration, I determined that it was more appropriate to set the end date to the earlier date of April 29, 2009 (which was the final date that tank number 008 could remain in temporary closure; it was required to be permanently closed by April 30, 2009 and the violation period from that day on is covered in count 7). The description below of how I calculated the new, lower penalty for count 4 below includes data resulting from this earlier end date and differs slightly from the figures that appear in the penalty printout for count 4 (exhibit 34 to EPA's PHE).

119. For the economic benefit, I used an estimated avoided annual recurring cost of $120 that I inputted into the BEN model. This is the estimated cost for conducting release detection for this tank. No capital investments or one-time, non-depreciable expenditures were used. The economic benefit was calculated as **$104**.

120. For the gravity-based component, there were 365 days of non-compliance, and, as a consequence, in accordance with the UST penalty guidance, I determined the DNM to be 2.5. For the period up until January 12, 2009, the DNM was set by the penalty calculation program at 2.0, and the matrix value was set at $1,930. The remainder of the DNM (0.5) occurred after January 12, 1999, and the matrix value was set at $2,120. No violator-specific adjustments to the matrix value were made as I had no evidence warranting any such adjustment. I assessed an ESM of 1 (see paragraphs 33 and 34, above). These factors resulted in a gravity-based component of **$4,920**.

121. Putting together the gravity-based amount of **$4,920** and the economic benefit amount of **$104**, I derived a total penalty for count 4 at Station I of **$5,024**. I refer the Court to EPA's PHE, exhibit 34, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 4 to show the general way the calculations were originally made (note, however, that the penalty has been slightly reduced as I have discussed above).

2. Count 5 — Station I (Failure to Maintain Cathodic Protection)

122. In my penalty calculations (see Exhibit 35 of EPA's PHE) I inadvertently chose June 12, 2008 as the start date for the violation in this count. It should actually have been June 22, 2008. This date, which is based upon the last due date of a corrosion protection test based on a tank's installation of on or about October 1, 1988, which in turn meant that this tank was an existing tank and required to have cathodic corrosion protection by no later than December 12, 1998. (Paragraph 35.d of the complaint mistakenly states the installation date of tank 008 as October 1, 1998, when the actual date was October 1, 1988.) If Mr. Chase, as the owner and operator of this UST, complied with the upgrade requirements for corrosion protection by December 22, 1998, the sacrificial anodes that are used for cathodic corrosion protection on this tank would have been installed by this date, and the first cathodic protection test would have been required on June 22, 1999, six months after said installation of the cathodic corrosion protection, in accordance with 40 C.F.R. § 280.31(b)(1); subsequent tests would then have been required every three years thereafter. The earliest cathodic protection test within the five year period prior to issuance of the complaint thus would have been required to be performed by June 22, 2008, the date that I should have chosen as the start of the violations. Setting the start date 10 days later (from June 12th to June 22nd) does not impact the DNM or gravity component. The end date that I originally chose for this violation was April 30, 2009, one year after temporary closure began and the time when the tank should have been permanently closed in accordance with 40 C.F.R. § 280.70(c) (again, see Exhibit 35 of the EPA's PHE). In reviewing the records

to prepare this declaration, however, I determined that it was more appropriate to set the end date one day earlier, to April 29, 2009, so as to be consistent with the revision in count 4, as described in paragraph 118, above. This revision has no impact on the DNM or the penalty. However, as a result of these two small changes in the start and end dates, the economic benefit drops by $2, to $67, which is the value EPA uses in the calculation of the currently sought penalty for this violation.

123. For the economic benefit, I used an estimated avoided annual recurring cost of $100 that I input into the BEN model. This is the estimated cost for conducting a corrosion protection test ($300) based on current rates but apportioned over the three-year period for which such a test is required. No capital investments or one-time, non-depreciable expenditures were used in the BEN model. The economic benefit was calculated as **$67**.

124. For the gravity-based component, there were 312 days of non-compliance (323 days in my original calculation, as it appears in exhibit 35 to EPA's PHE, but, as per the above revision, now reduced by 11 days), and, in accordance with the UST penalty guidance, I determined the DNM to be 2.5. For the period up until January 12, 2009, the DNM was set by the penalty calculation program at 2, and the matrix value was set at $1,930. The remainder of the DNM (0.5) occurred after January 12, 1999 and the matrix value was set at $2,120. No violator-specific adjustments to the matrix value were made as I had no evidence warranting any

such adjustment. I assessed an ESM of 1 (see paragraphs 33 and 34, above). These factors resulted in a gravity-based component of **$2,470**.

125. Putting together the gravity-based amount of **$2,470** and the economic benefit amount of **$67**, I derived a total penalty for count 5 at Station I of **$2,537**. I refer the Court to EPA's PHE, exhibit 35, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 5 (note, however, that the days of noncompliance and the BEN model differ slightly, as I have described above).

3. Count 6 — Station I (Failure to Cap & Secure Temporarily Closed Tank)

126. I chose July 30, 2008 as the start date for the violation in this count, which I derived as follows: that date is three months after Respondents had reported that this tank had been placed in temporary closure and when, in accordance with 40 C.F.R. § 280.70(b), this tank and its associated piping were to be secured and capped. The end date for this violation that I chose was November 30, 2009, which was the date this tank was permanently closed.

127. For the economic benefit, I used a one-time, non-depreciable expenditure of $50 that I inputted into the BEN model. This is the estimated cost for buying and installing the locks

required to secure and cap the tank and associated lines. No capital investments or avoided annual recurring costs were used. The economic benefit was calculated as **$9**.

128. For the gravity-based component, there were 489 days of non-compliance, and, as a consequence, in accordance with the UST penalty guidance, I determined the DNM to be 3. For the period up until January 12, 2009, the DNM was set by the penalty calculation program at 1.5, and the matrix value was set at $1,930. The remainder of the DNM (1.5) occurred after January 12, 2009, and the matrix value was set at $2,120. No violator-specific adjustments to the matrix value were made as I had no evidence warranting any such adjustment. I assessed an ESM of 1 (see paragraphs 33 and 34, above). These factors resulted in a gravity-based component of **$3,045**.

129. Putting together the gravity-based amount of **$3,045** and the economic benefit amount of **$9**, I derived a total penalty for count 6 at Station I of **$3,054**. I refer the Court to EPA's PHE, exhibit 36, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 6.

4. Count 7 — Station I (Failure to Permanently Close Tank)

130. I chose April 30, 2009 as the start date for the violation in this count, which I derived as follows: that date is one year after Respondents reported having placed this tank into temporary closure and when, in accordance with 40 C.F.R. § 280.70(c), the tank should have been permanently closed. The end date for this violation that I chose was November 30, 2009, which was the date when this tank was permanently closed.

131. For the economic benefit, I used a one-time, non-depreciable expenditure of $5000 that I inputted into the BEN model. This is the estimated cost for permanently closing an UST based on going rates. No capital investments or avoided annual recurring costs were used in the BEN model. The economic benefit was calculated as **$56**.

132. For the gravity-based component, there were 215 days of non-compliance, and, as a consequence, in accordance with the UST penalty guidance, I determined the DNM to be 2. As the entire violation period occurred after January 12, 2009, the penalty calculator program set the matrix value at $2,120. No violator-specific adjustments to the matrix value were made as I had no evidence warranting any such adjustment. I assessed an ESM of 1 (see paragraphs 33 and 34). These factors resulted in a gravity-based component of **$4,240**.

133. Putting together the gravity-based amount of **$4,240** and the economic benefit amount of **$56**, I derived a total penalty for count 7 at Station I of **$4,296**. I refer the Court to EPA's PHE, exhibit 37, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 7.

134. The total amount sought for the four temporary closure violations involving tank 008 at Station I is **$14,911**.

5. <u>Significance of the Temporary Closure Requirements</u>

135. The temporary closure requirements — the provisions that Mr. Chase (as the owner and operator of the USTs at Station I) violated — are important measures intended to prevent situations from arising that might (or could) present a danger to human health and the environment. As noted above (and in Mr. Blair's January 2012 declaration, paragraph 33), tank number 008 contained 31.5 inches of a kerosene residue during the April 2009 inspection of Station I. The circumstances surrounding tank number 008 well illustrate the importance of these temporary closure requirements.

136. Even when an underground storage tank is temporarily taken out of service, if it contains product (as tank number 008 in fact did), the potential for a leak is as great as that for an

operating tank, if not greater. Thus release detection is still absolutely necessary. The greater risk associated with a tank temporarily taken out of service arises from the fact that the tank is likely not being monitored and observed with the same regularity and frequency as an operating tank likely would be, and any unusual activity, such as a loss of any product contained in the tank, probably would not be quickly observed or rectified.

137. It is more than a question of the need for release detection in tanks temporarily taken out of service. The regulations require that the owner or operator continue providing corrosion protection (cathodic protection is one type of corrosion protection). A temporarily closed underground storage tank remains as vulnerable to corrosion as an operating tank. If there is no testing of corrosion protection, thus increasing the likelihood that corrosion protection will not be maintained, the chances for such a tank developing a hole or otherwise having its structural integrity compromised increases. Should such a tank later be put back in operation, any hole or damaged structure might well result in a leak from the tank.

138. A failure to cap and secure a temporarily closed tank creates the risk that such a tank may be accidentally filled or otherwise used in a way that increases the risk of a release. Because owners or operators are not required to maintain overfill or spill prevention for temporarily closed tanks, if such a tank were accidentally filled, there is a greater potential for an overfill or spill to occur, which would be an especially troublesome scenario where the owner or

operator thought the tank was empty and then accidentally filled it; under this latter scenario, the chances for an unintended release increase greatly.

139. The requirement that temporarily closed tanks be closed if certain conditions are not met is equally important. The regulation at 40 C.F.R. § 280.70(c) provides that when an underground storage tank is closed for greater than 12 months, its owner or operator are required to close that UST permanently if the tank fails to meet the 40 C.F.R. § 280.20 performance standards for new UST systems or the upgrading provisions of 40 C.F.R. § 280.21 except that the tanks need not comply with the spill and overfill equipment requirements. The assumption underlying this overall requirement is that the longer the time that a tank fails to meet the performance requirements of 40 C.F.R. §§ 280.20 and -.21 (regarding provisions such as those concerning corrosion protection and upgrade requirements), the greater the likelihood that such a tank corrode and subsequently leak. Another concern is that a tank that is not used for a long time might more likely be forgotten over time; if, for example, such a tank were purchased by a new owner (as might occur when the ownership of a gasoline station changes hands), the purchaser might be unaware of the tank and its potential problems. In any event, the regulations require that tanks closed for more than 12 months be permanently closed if they do not comply with the specified 40 C.F.R. §280.20/-.21 requirements.

140. The temporary closure requirements are thus important provisions for the environmentally safe and responsible management of underground storage tank systems. These

regulations serve to ensure that the termination of service of USTs takes place in a manner that minimizes the risks associated with owners or operators taking them out of service, and these regulations are an important part of the overall 40 C.F.R. Part 280 objective of protecting human health and the environment from the dangers inherent in the use of underground storage tanks that contain petroleum-based substances as kerosene.

6. Temporary Closure Requirement Violations and the Statutory Criteria

141. It is my view that the penalties EPA seeks for each of the four temporary closure violations is reasonable, and I ground this view based upon the overall circumstances pertaining to these violations and in light of my UST background at EPA. In the prior paragraphs, I have set forth the importance of the four regulations at issue in this proceeding (for each of the four counts). Disregarding or otherwise failing to comply with these regulations might entail serious consequences and might result in harm occurring. The possibility of such consequences occurring or such harm being realized is made greater because of the extended nature of these violations. For example, the longer the temporary closure requirements were not complied with, the greater the likelihood that tanks not in service would corrode, would leak or would inadvertently be used.

142. Mr. Chase, as the owner and operator of tank number 008 at Station I, failed to comply with the temporary closure requirements for a period running between approximately seven months and 19 months. Such extended time periods exacerbate the problems that the temporary closure requirements are intended to address, and, in light of this time, it cannot be denied that, individually and in the aggregate, these were significant violations.

143. The prolonged lengths of Mr. Chase's non-compliance with the temporary closure requirements (215 days in count 7; 312 days in count 5; 365 days in count 4; and 489 days in count 6) attest to an essential indifference to these regulatory requirements and such indifference demonstrates the overall absence of bona fide good faith efforts to comply. EPA's April 2009 information request letter specifically inquired about release detection and corrosion (cathodic) protection for tank number 008 (paragraphs 71 and 75 of my February 2012 declaration), and EPA's October 2009 information request letter expressly inquired as to what step Mr. Chase had taken to comply with temporary closure requirements. This lack of good faith is well illustrated by the circumstances in count 4. By April 2009 Mr. Chase had express notice of the release detection requirements for a closed tank, but the situation was finally addressed over seven months later when tank number 008 was permanently taken out of service.

144. These facts show Mr. Chase did not give the attention to the regulatory requirements that are triggered when an underground storage tank is temporarily taken out of service. These steps are required in light of the potential problems that might exist when a tank is temporarily

taken out of service. These 40 C.F.R. Part 280 rules were intended to prevent this type of neglect of or inattention to such tanks.

145. The penalties sought for each of counts 4, 5, 6 and 7 against Mr. Chase are reasonable and appropriate given the circumstances discussed above. This is my view now, as it was when I initially reviewed the record and developed the complaint. My view as to the reasonableness of the penalties is based both on the serious nature of these violations and on the extended absence of good faith efforts to comply with the applicable regulatory requirements. Given the criteria set forth in 42 U.S.C. § 6991e, each of these penalties is amply justified. Based on my UST experience at EPA, Region 2, I do not hesitate to say that each of these penalties is warranted.

D. Failure to Comply with Overfill Prevention Requirements (Counts 3 and 12)

146. These two counts involve violations of the overfill prevention requirements: count 3 involves tank number 008 (an existing tank, as defined in 40 C.F.R. § 280.12 since it was underground storage tank the installation of which began on or before December 22, 1988) at Station I, and count 12 involves tank 001A (a new tank, as defined in 40 C.F.R. § 280.12 since it was an underground storage tank the installation of which began after December 22, 1988) at Station IV. Tank 008 had a capacity of 550 gallons and it contained kerosene; as previously

discussed, it was temporarily taken out of service in April 2008 and removed from service in November 2009. Tank 001A at Station IV, which is the 9,000-gallon compartment of tank number 001, contained diesel fuel.

147. The regulation at 40 C.F.R. § 280.20(c)(1)(ii) requires that owners or operators of new UST systems, in order to prevent spilling and overfilling when a product [such as gasoline or diesel fuel] is transferred to an underground storage tank system, must use spill and overfill prevention equipment that will: **a)** automatically shut off the flow of product into the UST when it is no more than 95% full; **b)** alert the person carrying out the transfer when the UST is no more than 90% full by restricting the product's flow into the UST or triggering a high-level alarm; or **c)** restrict product flow 30 minutes prior to overfilling, alert the operator with a high level alarm one minute before overfilling, or automatically shut off the product's flow into the tank so that none of the fittings located on the tank's top is exposed to product because of overfilling. The regulation at 40 C.F.R. § 280.21(d) requires that existing underground storage tanks be upgraded to have overfill prevention devices that meet the requirements of 40 C.F.R. § 280.20(c)(1) by December 22, 1998.

148. The UST penalty guidance informs that a violation of either provision (*i.e.* for either new tank systems or for existing tank systems) is, for purposes of determining the appropriate gravity-based component of the penalty, classified as follows: the extent of deviation from the applicable requirement is Major and the potential for harm is Moderate. A violation of either

provision is assessed (calculated) on a per-tank basis. See Exhibit A, the UST penalty guidance, Subpart B ("UST Systems: Design, construction, Installation, and Notification") of Appendix A, "Matrix Values for Selected Violations of Federal Underground Storage Tank Regulations."

1. Count 3 — Station I

149. I chose April 1, 2006 as the start date for the violation in this count, which date is five years prior to the issuance of the complaint, and based on what I had received, and had not received, from Respondents, I determined that this violation had actually existed since December 22, 1998. (I wish to note that paragraphs 92, 93 and 96 of the complaint indicate a start date of "at least two years prior to and through April 30, 2008" and on page 9 of the Court's June 21, 2012 order, the Court set the operative date for the beginning of this violation as April 30, 2006. Even if the later date of April 30, 2006 were used, this would have no impact on the DNM for this penalty, and thus would not impact the amount of the penalty.) The end date that I chose for this violation was April 30, 2008, which is when Respondents reported having placed this tank (tank number 008) into temporary closure and thus overfill prevention was no longer required.

150. For the economic benefit, I used an estimated, one-time, non-depreciable expenditure of $600 that I input into the BEN model. This is the estimated cost for the installation of an overfill device based on going rates that Mr. Chase avoided paying during the

period of violation. No capital investments or one-time, avoided annual recurring costs were used. The economic benefit was calculated as **$236**.

151. For the gravity-based component, there were 761 days of non-compliance, and, as a consequence, in accordance with the UST penalty guidance, I determined the DNM to be 4. The penalty calculation model set the matrix value at $970 for the full period (all of which was before January 12, 2009 and therefore did not straddle inflationary adjustment periods). No violator-specific adjustments to the matrix value were made as I had no evidence warranting any such adjustment. I assessed an ESM of 1. These factors resulted in a gravity-based component of **$3,880**.

152. Putting together the gravity-based amount of **$3,880** and the economic benefit amount of **$236**, I derived a total penalty for count 3 at Station I of **$4,116**. I refer the Court to EPA's PHE, exhibit 33, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 3.

2. Count 12 — Station IV

153. For this count, involving the 9,000-gallon compartment (designated tank 001A) of tank 001, I chose August 26, 2008 as the start date for the violation in this count, which was the day of the EPA inspection when the overfill device on this tank was observed to be broken (paragraph 53 of the January 2012 Blair declaration). The end date for this violation that I chose was July 24, 2009, the date the facility was sold.

154. For the economic benefit, I used an estimated, one-time, non-depreciable expenditure of $600 that I inputted into the model. This is the estimated cost for the installation of an overfill device based on going rates and represents how much Respondents (Mr. Chase and Chase Services, Inc.) avoided paying during the violation period. No capital investments or one-time, avoided annual recurring costs were used. The economic benefit was calculated as **$114**.

155. For the gravity-based component, there were 333 days of non-compliance, and, as a consequence, in accordance with the UST penalty guidance, I determined the DNM to be 2.5. For the period up until January 12, 2009, the penalty calculation computer model set the equivalent DNM at 1.5, and the matrix value was set at $970. For the remainder of the DNM after January 12, 2009 (1.0), the penalty calculation computer model set the matrix value at $1,060. No violator-specific adjustments to the matrix value were made as I had no evidence

warranting any such adjustment. I assessed an ESM of 2 for the reason previously set forth (paragraphs 33 and 34, above). These factors resulted in a gravity-based component of **$5,030**.

156. Putting together the gravity-based amount of **$5,030** and the economic benefit amount of **$114**, I derived a total penalty for count 12 at Station I of **$5,144**. I refer the Court to EPA's PHE, exhibit 42, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 12.

157. The total amount sought for the two overfill prevention requirements violations is **$9,260**.

3. Significance of the Overfill Prevention Requirements

158. The importance of the requirement for functional overfill prevention equipment should be self-evident: to prevent overfilling and thus spillage to the surrounding environment of the petroleum-based products during the process of filling an UST system. Such equipment is intended to prevent harm to the people working with underground storage tanks, be they those working at retail gasoline stations, those who deliver substances to such stations, and retail customers purchasing motor fuel. These requirements are also intended to prevent spills that

would allow gasoline and other products to enter the environment, perhaps then contaminating drinking water supplies, natural water bodies, agricultural areas, or residences. The danger of faulty or non-functioning overfill prevention equipment also includes the danger of an explosion or a fire, especially when the overfilled product is something as inflammable as gasoline or kerosene.

159. These requirements go to the very safety of the operation and maintenance of underground storage tanks: safety from hazards that include both fire danger and environmental contamination. For example, a danger exists when fuel suppliers are filling up a tank with gasoline as they, as well as customers or workers at the station, then become exposed to the fuel fumes or they are exposed to the explosion or fire hazard created if overfilled product comes into contact with an ignition source, including static electricity or the potential spark from a cell phone.

4. <u>Overfill Prevention Requirement Violations and Statutory Criteria</u>

160. It is my view that the penalties EPA seeks for each of the two overfill prevention violations are reasonable, and this conclusion is grounded upon my consideration of all the surrounding circumstances and upon my UST background at EPA. In the paragraphs in the section above, I have set forth the importance of the regulatory requirements for overfill

prevention. As noted, a failure to comply with the overfill prevention requirements may result in spills and hazardous substances (as gasoline, diesel fuel or kerosene) entering the environment. As with the other violations Respondents committed, these dangers are magnified because of the relatively long time periods over which these violations occurred.

161. Mr. Chase, as the owner and operator of tank number 008 at Station I, failed to comply with the overfill prevention requirements for a period of over two years. He, as the operator of tank number 001A, and Respondent Chase Services, Inc. ("CSI"), as the owner of this tank (at Station IV), failed to comply with these requirements for a period of almost one year, and this violation ended not by any corrective action taken by either Mr. Chase or CSI, but because of the July 2009 sale of this station (paragraph 104 of my February 2012 declaration). The longer the overfill prevention requirements were not being met, the greater the likelihood that an overfill problem would occur. These violations are sufficiently serious to warrant the penalties sought by EPA. The seriousness of the violation is exacerbated at Station IV because it overlies a New York State Source Water Protection area, with the vulnerability of these direct sources of public drinking water increased as a direct consequence of Mr. Chase/CSI not having an operating overfill device on tank number 001A.

162. The pattern seen throughout this entire proceeding continues with regard to the two overfill prevention violations: the lengths of the periods of non-compliance (solely by Mr. Chase with regard to tank number 008 at Station I; jointly by CSI, as owner, and Mr. Chase, as

operator, with regard to tank number 001A at Station IV) reveal disregard of what these regulations required; as with the other violations that this Court has found, the actions (through inaction) of Respondents convey a basic absence of good faith efforts to comply. Illustrative of this lack of good faith efforts to comply is the situation regarding tank number 001A at Station IV: although EPA's April 2009 information request letter specifically inquired about the overfill prevention device on this tank, no corrective action was taken through the time of the July 2009 sale of this station; the June 2009 response from Mr. Chase provided no information of how he (or Respondent CSI) might address this violation, or even whether he (or CSI) intended to do so. Paragraph 102 of my February 2012 declaration.

163. These facts affirm that Mr. Chase (or CSI regarding tank 001A; Mr. Chase is chief corporate officer of CSI) did not give the attention to the regulatory requirements for proper functioning of overfill prevention equipment.

164. The penalties sought for each of counts 3 against Mr. Chase and 12 against Mr. Chase and CSI are reasonable and appropriate given these circumstances. This is my view now, as it was when I initially reviewed the record and developed the complaint. My view as to the reasonableness of these penalties is based both on the serious nature of these violations and on the extended absence of good faith efforts to comply with the regulatory provision for properly functioning overfill prevention equipment on underground storage tanks. Given the criteria set forth in 42 U.S.C. § 6991e, each of these penalties is amply justified. Based on my UST

experience at EPA, Region 2, I believe that each of these penalties is warranted under this statutory provision.

E. Failure to Comply with Corrosion Protection Testing (Count 9)

165. This count involves two underground storage tanks, designated tank number 001 and tank number 002, at Station III. Each was used to store gasoline. Tank number 001 had a capacity of 11,000 gallons, and tank number 002 had a capacity of 4,000 gallons. Both of these tanks were identified during EPA inspections to be of a "stip-3" design, a tank type that relies on a form of corrosion protection called sacrificial anodes. Sacrificial anodes are the main component of a cathodic protection (CP) system used to protect buried or submerged metal structures from corrosion. They are made from a metal alloy with a more "active" voltage (more negative electrochemical potential) than the metal of their host structure. The difference in potential between the two metals means that the anodes corrode more quickly, so that the anode material corrodes instead of the host structure. Because these tanks were installed on November 1, 1995, the anodes on tank number 001 and tank number 002 at Station III were required to be tested by no later than May 1, 1996 and every three years thereafter pursuant to 40 C.F.R. § 280.31(b).

166. This count involves a violation of 40 C.F.R. § 280.31(b). Sub-paragraph 1 of this regulation requires that underground storage tanks that are equipped with cathodic corrosion protection be tested for proper operation within six months of their installation and then every three years thereafter. Sacrificial anodes constitute one type of cathodic corrosion protection.

1. The Penalty Parameters for a Corrosion Protection Testing Violation

167. For purposes of determining the appropriate gravity-based component of the penalty, the UST penalty guidance states a violation of this regulatory provision is classified as involving a Major for deviation from the applicable governing requirements and a Moderate potential for harm. A violation of the cathodic protection testing requirement is calculated on a per-tank basis. See Exhibit A, the UST penalty guidance, Subpart C ("General Operating Requirements") of Appendix A, "Matrix Values for Selected Violations of Federal Underground Storage Tank Regulations."

168. For this count, involving the two tanks (tank number 001 and tank number 002), I chose May 1, 2008 as the start date for the violation in this count; this was the earliest date within the five-year period looking back from the date of issuance of the complaint when a corrosion protection test had to have been conducted (as noted above, these timing of these tests

is tied to the date of the tanks' installation). The end date that I chose for this violation was April 6, 2009, when a corrosion protection test for the two tanks was conducted.

169. For the economic benefit, I used an estimated, avoided annual recurring cost of $200 that I input into the BEN model. This is the estimated cost for conducting a corrosion protection test for two tanks ($600) based on current rates but divided over the three-year period each test covers and represents the money Mr. Chase avoided paying by not conducting tests in a timely manner. No capital investments or one-time non-depreciable expenditures were applicable for this violation and I inputted a value of zero into the BEN model for them. The economic benefit was calculated as **$150**.

170. For the gravity-based component, there were 341 days of non-compliance, and, as a consequence, in accordance with the UST penalty guidance, I determined the DNM to be 2.5. For the violation period up through January 12, 2009, the equivalent of a DNM of 2.0, the penalty calculation computer program set the matrix value at $970. For the remainder of the DNM (0.5), the period after January 12, 2009, the program set the matrix value at $1,060. No violator-specific adjustments to the matrix value were made as I had no evidence warranting any such adjustment. I assessed an ESM of 1.5 for the reasons set forth in paragraphs 33 and 34, above. These factors resulted in a gravity-based component of **$7,410**.

171. Putting together the gravity-based amount of **$7,410** and the economic benefit amount of **$150**, I derived a total penalty for count 9 at Station III of **$7,560**. I refer the Court to EPA's PHE, exhibit 39, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 9.

2. Significance of the Corrosion Protection Testing Requirement

172. The requirement for regular testing of those underground storage tanks equipped with cathodic protection function is important to ensure the structural integrity of underground storage tanks. Such integrity is a primary safeguard against leaks from a tank containing petroleum products into the environment, leaks that might contaminate drinking water supplies, natural water bodies, agricultural areas, or residences. Maintaining such integrity accordingly plays an important role in effecting the safe and environmentally responsible operation and maintenance of underground storage tanks that 40 C.F.R. Part 280 seeks.

173. To ensure that the integrity of tanks equipped with cathodic protection is not compromised, the rules require regular testing of such tanks' corrosion protection. Underground tanks with metallic structures in contact with soil are also very vulnerable to corrosion as are the sacrificial anodes protecting the tanks (sacrificial anodes were discussed more fully in paragraphs 164 and 165, above.) Without regular testing, a tank operator may overlook the fact that the sacrificial anode(s) has corroded to the point that it (they) no longer protects the host

tank, and then the host tank will itself be more likely to corrode. Regularly testing keeps a vigilant eye on the integrity of the tank system. A failure to perform such testing calls into the question the safety of these tanks maintenance and operation, especially since these tanks contained gasoline, which is, as is well known, extremely volatile, explosive and flammable.

3. Corrosion Protection Testing Requirement and Statutory Criteria

174. I believe that the penalty EPA seeks for this violation at Station I to be reasonable given all the attendant circumstances, including that the two tanks had a combined capacity of 15,000 gallons and they contained gasoline; I reach this conclusion based upon my UST background and experience at EPA. In the paragraphs in the section above, I have discussed the importance of the required testing in order to maintain the structural integrity of these underground storage tanks, and the accompanying importance of that integrity itself. The longer this regulatory requirement was not met, the more likely it is that tank corrosion or other problems with the tanks' structural soundness would have occurred. In this violation, Respondent Andrew B. Chase, as both owner and operator of these two tanks, neglected complying with the regulatory requirement for over 11 months.

175. This violation is sufficiently serious for this Court to assess the penalty EPA seeks.

176. Mr. Chase's virtually year-long failure to conduct the required testing calls into question the priority he attached to ensuring that these tanks maintained their structural integrity, and that in turn implicates the extent (or lack thereof) of his good faith efforts to comply. As the Part 280 regulations also require that an owner/operator maintain the last two corrosion protection tests, the fact that Mr. Chase never provided any evidence of a test conducted prior to July 2009 indicates he may never have addressed this requirement. His disregard or neglect of the applicable regulatory requirement reveals that, at most, his good faith efforts to effect regulatory compliance were, at most, minimal, especially considering Mr. Chase has been involved with underground storage tanks for a number of years.

177. The penalty sought for count 9 against Mr. Chase is reasonable and appropriate under these circumstances. This was my belief when I initially reviewed the record and developed the complaint, and it is my view now. My view as to the reasonableness of the penalty is based upon the type of violation involved and its importance in the regulatory scheme and also upon Mr. Chase's extended inattention to the regulatory requirement. Given the criteria set forth in 42 U.S.C. § 6991e, I can only conclude that this penalty is justified under those factors EPA is obligated to consider in assessing an UST penalty. Based on my UST experience at EPA, Region 2, I do not doubt that the penalty sought for the count 9 UST violation is warranted under this statutory provision.

F. Failure To Report/Investigate Suspected Release (Count 21 — Station VI)

178. This count involves a compartmentalized underground storage tank with two compartments, each of which is considered an underground storage tank; one is designated tank number 002A and the other is designated tank number 002B. Tank 2A, with a capacity of 6,000 gallons, contained "off-road" diesel fuel and tank 2B, with a capacity of 2,000 gallons, contained kerosene. This UST system was located at Station VI. These tanks were installed on or about November 1, 2001.

179. This count involves a violation of 40 C.F.R. § 280.50, under which the owner/operator of an underground storage tank system must report to the "implementing agency" within 24 hours a number of conditions specified in that regulation, including a release or suspected release from an UST. By agreement between the EPA and the State, the "implementing agency" in New York State is the New York State Department of Environmental Conservation for a number of purposes, including to receive reports of suspected releases from an underground storage tank. (See paragraph 148 of my February 2012 declaration.) The owner/operator must also follow the procedures set forth in 40 C.F.R. § 280.52, including to immediately investigate suspected releases of regulated substances.

180. For purposes of determining the appropriate gravity-based component of the penalty, the UST penalty guidance states a violation of this regulatory provision is classified as involving a Major for deviation from the applicable governing requirements and a Major potential for harm. A violation of this requirement is calculated on a per-facility basis.

181. For this count involving the two tanks at Station VI, I chose a start date of August 25, 2010, which was the date 24 hours after I notified Mr. Chase and the facility that the sump sensors used for release detection for the pressurized piping at Station VI were in alarm. The end date chosen was August 26 2010, when the facility actually did an investigation into the potential release.

182. I determined that no discernible economic benefit could be calculated for this violation, and thus set this value at zero while doing the penalty calculation.

183. For the gravity-based component, there were 2 days of non-compliance, and, as a consequence, in accordance with the UST penalty guidance, I determined the DNM to be 1. As the violation occurred in its entirety after January 12, 2009, the penalty calculation program set the matrix value at $2,120. No violator-specific adjustments to the matrix value were made as I had no evidence warranting any such adjustment. I assessed an ESM of 1. These factors resulted in a gravity-based component of **$2,120**.

184. Given the gravity-based amount of **$2,120** and a zero economic benefit component, I derived a total penalty for count 21 at Station VI of **$2,120**. I refer the Court to EPA's PHE, exhibit 51, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 21.

185. The significance of the requirement that an owner or operator immediately report a suspected release to the New York State Department of Environmental Conservation (NYSDEC) is to ensure that the State is kept fully informed in a prompt manner of all suspected releases of petroleum-based substances from underground storage tanks. The underground storage tank law is part of overall law on solid and hazardous waste (formally called the Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6992k), and Congress instructed EPA to partner with the states in implementing the law on solid and hazardous waste. As part of the states' participation in this overall scheme to govern the generation, management, handling and disposal of solid waste (including the management of tanks), it is important that states be given prompt notice of suspected releases from underground storage tanks.

186. Equally significant is the requirement that an owner/operator immediately investigate a suspected release from an underground storage tank. Given the harm to human health or the environment that might result from a release of petroleum-based products such as

gasoline or diesel fuel, it is imperative that such a release be investigated immediately so that corrective measures be taken, as well that preventative measures be taken to ensure no repetition or recurrence. The sooner a suspected release is investigated, the more quickly it can be rectified, and the more the extent of the attendant threat to human health or environmental damage can be limited.

187. As I have discussed in the paragraphs above, the violations of count 21 are sufficiently serious for this Court to assess the penalty EPA seeks. As for the good faith efforts to comply, these should be evaluated within the window of time the regulatory requirement provides for compliance. Although Mr. Chase had been given express notice directly by me, his efforts at compliance occurred outside the 24-hour period the regulation allows to address this type of situation. His neglect of the possibility of a potential release lasted beyond the time period set in the regulation for compliance. This dereliction of his regulatory obligation should be evaluated in light of his longstanding ownership and operation of underground storage tanks.

188. The penalty sought for count 21 against Mr. Chase is reasonable and appropriate under these circumstances. This was my belief when I initially reviewed the record and developed the complaint, and it is also the view I hold now. In light of the criteria set forth in 42 U.S.C. § 6991e, my conclusion, one in which I have confidence with a reasonable degree of certainty based upon by my experience in the UST program at EPA, Region 2, is that this penalty is justified under those factors EPA is obligated to consider in assessing an UST penalty. A

penalty of $2,120 is neither unreasonable nor unwarranted for the violations found by this Court for count 21; indeed, I believe this amount is appropriate and justified for the violations in count 21.

G. Failure To Maintain Records of Release Detection Monitoring for Pressurized Piping (Count 11 - Station III, Count 14 - Station IV, and Count 16 - Station V)

189. These three counts involve a number of underground storage tanks (and the piping connected to them) at three stations, as follows: count 11 at Station III, count 14 at Station IV and count 16 at Station V. **Count 11** pertains to records for the pressurized piping for tank number 001 and tank number 002, each of which contained gasoline and utilized underground piping that was pressurized; **Count 14** pertains to records for the pressurized piping for: a) tank number 001A, which contained diesel fuel and utilized underground piping that was pressurized, and b) tank number 003A and tank number 003B, each of which contained gasoline and utilized underground piping that was pressurized; and **Count 16** pertains to records for the pressurized piping for: a) tank number 001A and tank number 001B, each of which contained gasoline and utilized underground piping that was pressurized, and b) tank number 002A, which contained diesel fuel and utilized underground piping that was pressurized.

190. The capacity of these tanks is as follows: **a)** tank number 001 at Station III, 11,000 gallons; **b)** tank number 002 at Station III, 4,000 gallons; **c)** tank number 001A at Station IV,

9,000 gallons; **d)** tank number 003A at Station IV, 10,000 gallons; **e)** tank number 003B at Station IV, 5,000 gallons; **f)** tank number 001A at Station V, 10,000 gallons; **g)** tank number 001B at Station V, 5,000 gallons; and **h)** tank number 002A at Station V, 6,000 gallons.

191. For the violations found at each of Station III, Station IV and Station V, Respondent Andrew B. Chase has been found liable. In addition, for the violations found at Station IV, Respondent Chase Services, Inc., has also been found liable, while, for the violations found at Station V, Respondent Chase Commercial Land Development, Inc., has also been found liable.

192. Owners and operators of UST systems are required, per 40 C.F.R. § 280.41(b)(1)(ii), to monitor releases from underground piping in which regulated substances are regularly conveyed under pressure, and such monitoring must occur in a manner that meets one of the requirements listed in that provision. Further, the owners and operators are also required, under 40 C.F.R. § 280.45, to maintain records in accordance with 40 C.F.R. § 280.34, and such records must demonstrate compliance with the applicable requirements of 40 C.F.R. Part 280, Subpart D. (The regulation at 40 C.F.R. § 280.41 is part of the Subpart D regulations.) One of the 40 C.F.R. § 280.34 provisions requires owners and operators to maintain information pertaining to recent compliance with the release detection requirements 40 C.F.R. § 280.45. And, pursuant to 40 C.F.R. § 280.45(b), the owner or operator must maintain the results of any sampling, testing or monitoring for at least one year.

193. The UST penalty guidance states that a violation(s) of the recordkeeping requirement, as occurred in counts 11, 14 and 16, is classified, for purposes of determining the appropriate gravity-based component, as Moderate for extent of deviation from the applicable requirements and Minor for potential for harm. Such a violation is calculated on a per-facility basis. See Exhibit A, the UST penalty guidance, Subpart D ("Release Detection") of Appendix A, "Matrix Values for Selected Violations of Federal Underground Storage Tank Regulations."

194. When determining economic benefit, I input a base $120 of annual recurring costs into the BEN model, which is essentially an estimate of $10 a month which would be required for the labor and supplies to generate and maintain records. When determining violator-specific modifiers, I assessed an additional 5% increase to the matrix value for "unique" factors for every additional tank or line from the first tank that requires release detection. This was to reflect the higher significance of not maintaining records for multiple components.

195. For each of these three counts (11, 14 and 16, pertaining to Stations III, IV and V, respectively), I chose August 26, 2007 as the start date for the respective violations because that date was 12 months prior to the August 26, 2008 inspection. I chose December 31, 2007 as the end date for the respective violations because, for each of these stations, Mr. Chase made available release detection records for pressurized piping from January 2008 on. None of the Respondents ever provided, for any of the UST systems in question at the three stations, evidence of release detection records for the pressurized piping from August 2007 through

December 2007 (as I have previously stated in my February 2012 declaration: paragraph 98 for count 11; paragraphs 111 and 112 for count 14; and paragraphs 120 and 121 for count 16).

196. For each of these three counts, I calculated the economic benefit to be **$33.** For each of them, for the gravity-based component, there were 128 days of non-compliance, and, as a consequence, in accordance with the UST penalty, I determined the DNM to be 1.5. As these violations occurred in their entirety between March 14, 2004 and January 12, 2009, the penalty calculation program set the matrix value at $130.

197. There were only two variable among the three counts. I made violator-specific adjustments to the matrix value based upon the number of pressurized lines involved in each count. Thus, for count 11, because that count involved two pressurized lines, I made a 5% upward adjustment to the matrix value; for each of counts 14 and 16, because each involved three pressurized lines, I made a 10% upward adjustment to the matrix value in each count. Again, this was done to reflect the increased seriousness of not maintaining records when multiple components (in this case, pressurized piping were involved.

198. For the reasons discussed in paragraphs 33 and 34, above, for the violation involving Station III I assessed an ESM of 1.5; for the violation involving Station IV, I assessed an ESM of 2; and for the violation involving Station V, I assessed an ESM of 1.

199. Putting together the gravity-based component for the violations in count 11 at Station III (**$307.13**), the gravity-based component for the violations in count 14 at Station IV (**$429**) and the gravity-based component for the violations in count 16 at Station V (**$214.50**), I determined the following penalties for these counts: for count 11, **$340.13**; for count 14, **$462**; and for count 16, **$247.50**. The aggregate amount for the total penalty as a consequence of the failure to maintain records of release detection monitoring for pressurized piping connected to the specified USTs at Stations III, IV and V is **$1,049.63**. I refer the Court to EPA's PHE, exhibit 41, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 11; EPA's PHE, exhibit 44, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 14; and EPA's PHE, exhibit 46, the EPA Penalty Computation Worksheet, together with the economic benefit component (derived from EPA's Economic Benefit program, a/k/a "BEN analysis") for count 16.

200. The significance of these record-keeping violations arises from the reasons that records are to be maintained: the records afford the regulated party the means to check whether its piping is experiencing releases (small or large). In addition, the records provide a method by which EPA can readily confirm with a high degree of certainty whether an owner or operator of USTs is complying with specified release detection monitoring requirements. Without such

records being developed and kept, EPA would be unable readily to ascertain whether an owner/operator complies with such requirements or violates them, and would then have to base its conclusion from presumption, inference and the entirety of the circumstances. The record-keeping requirements represent the mechanism, the means, for the EPA efficiently and effectively to keep abreast of the extent and rates of compliance, and a failure to comply with these record-keeping requirements might indicate (as in the present case) non-compliance. Thus insisting on the records being kept may help deter releases and is one concrete way EPA can insist and then confirm that owners/operators are complying with the underlying regulatory requirements.

201. While these are relatively serious violations, they are not of the magnitude of other, substantive violations (such as failing to annually test the operation of the automatic line detectors). Nonetheless, for the reasons set forth in the above paragraph, these are not violations to be taken lightly or dismissed.

202. Mr. Chase, for all three counts (and Chase Services, Inc., for count 14; Chase Commercial Land Development, Inc., for count 16) failed to comply with the applicable record-keeping requirement for 128 days. While the extent of this extended neglect (involving three separate service stations, and the pressurized piping connected to eight USTs with a total capacity of 60,000 gallons of either gasoline or diesel fuel) did not continue as long as some of the other violations, it did persist for more than one-third of a calendar year. Additionally,

although EPA sent a number of information requests to Mr. Chase requesting records for the piping, he consistently ignored this and focused on providing records that only pertained to tanks. This further demonstrated to me a lack of good faith on his part to provide EPA with records and to comply with legal requirements. Based on all I learned from the record of this proceeding, I can only conclude that good faith efforts to comply with the applicable requirements were non-existent for the last third of 2007, the period of non-compliance.

203. I believe the relatively small penalties sought for each of counts 11, 14 and 16 (none is above $500, and two are below $350) are reasonable and appropriate when measured against the circumstances underlying the violations. I hold to this view now, as I did when I first reviewed the record in this matter and developed the penalty amounts. My view that each of these penalties is reasonable and warranted is based upon my evaluation of the relative seriousness of these violations and the absence of good faith regarding compliance efforts during the last several months of 2007. In light of the standards set forth in 42 U.S.C. § 6991e, each of these penalties is fully justified, and, based upon my experience with UST matters at EPA, Region 2, over a number of years, I have no doubt about the correctness of my conclusion.

VI. Recent Review of the Penalty Amounts in Issue

204. The entire amount of the penalty EPA is seeking for all counts (1 through 16, 18, 19 and 21) is **$263,052.63**. The amount tabulated in the complaint, $232,838.63 was incorrect; the correct sum in the complaint should have read $276,078.63. Because EPA is not pursuing a judgment of liability for counts 17 and 21, and because EPA has slightly lowered the penalties for count 4 and count 5, the total amount of penalty EPA is requesting this Court to assess is less than the $276,078.63 amount.

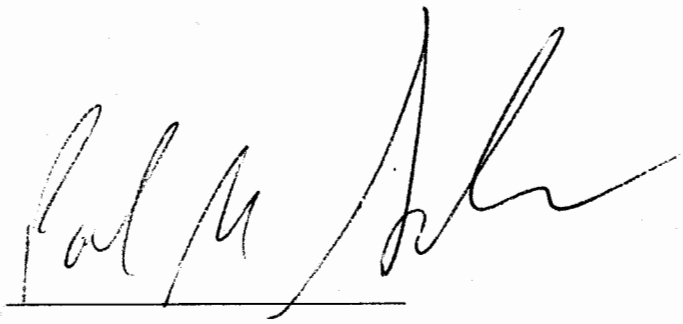
205. Based upon a recent review of the penalty amount for each of the counts in issue that I conducted in order to prepare this declaration, I affirmed that a penalty calculation using the directions provided in the UST penalty guidance incorporates and reflects those factors listed in the UST statutory penalty provision, 42 U.S.C. § 6991e, *i.e.* the seriousness of each and any good faith efforts to comply with an applicable requirement.

206. As I reviewed the penalty amounts discussed above in preparation for executing this declaration, I analyzed the relevant facts and circumstances giving rise, constituting and/or surrounding the respective violation(s) in question in an effort to attempt to ensure that each such penalty would be reasonable in light of all such pertinent facts and circumstances, including the minor adjustments made to some of the penalties (as discussed above). A good portion of such

analysis for each penalty amount consisted of my considering, weighing the facts of and evaluating the seriousness of the underlying violation(s) and any good faith efforts by Respondents (whether Mr. Chase alone, or Mr. Chase with one of the corporate respondents) to comply with the applicable legal requirement(s). Based upon my recent review, I have no hesitation or doubt in my belief that each of the penalties sought by EPA is reasonable, appropriate and justified in light of these considerations.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information and belief.

Executed on: August 9, 2012



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United States
Environmental Protection
Agency

Office of
Solid Waste and
Emergency Response

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U.S. EPA PENALTY GUIDANCE FOR VIOLATIONS OF UST REGULATIONS

November 1990

Office of Underground Storage Tanks
U.S. Environmental Protection Agency

NOTICE

The procedures set forth in this document are intended solely for the guidance of the U.S. EPA. They are not intended, and cannot be relied on, to create rights, substantive or procedural, enforceable by any party in litigation with the United States government. The U.S. EPA reserves its right to act at variance with this guidance and to change it at any time without public notice.

CHAPTER 1. INTRODUCTION TO UST PENALTY GUIDANCE

This document provides guidance to U.S. Environmental Protection Agency (EPA) Regional Offices on calculating civil penalties against owner/operators of underground storage tanks (USTs) who are in violation of the UST technical standards and financial responsibility regulations. The methodology described in this guidance seeks to ensure that UST civil penalties, which can be as high as $10,000 for each tank for each day of violation, are assessed in a fair and consistent manner, and that such penalties serve to deter potential violators and assist in achieving compliance.

This penalty document is part of a series of enforcement documents which includes: (1) the Agency's UST/LUST Enforcement Procedures Guidance Manual (OSWER Directive 9610.11, July 1990), which provides guidance to U.S. EPA Regional personnel on taking enforcement actions against violations of the UST technical requirements; and (2) the draft "Interim Enforcement Response Strategy for Violations of UST Financial Responsibility Requirements," which provides guidance on taking enforcement actions against violations of the financial responsibility requirements. Although these enforcement documents are intended primarily for U.S. EPA Regional enforcement staff, State and local UST implementing agencies may find it useful to adapt some of the concepts and methodologies for their own UST enforcement programs.

This chapter briefly describes the U.S. EPA's authorities for taking enforcement action and assessing civil penalties. It also provides an overview of the enforcement actions that may be taken in response to UST violations, and indicates how the assessment of penalties fits into the enforcement framework.

1.1 U.S. EPA PENALTY AUTHORITY

The U.S. EPA's authority for assessing civil penalties for violations of UST requirements is provided by Subtitle I of the Resource Conservation and Recovery Act (RCRA). Under the Hazardous and Solid Waste Amendments of 1984, Congress added Subtitle I to RCRA in response to the growing environmental and health problems created by releases from USTs. The statutory framework for the national UST program is set forth in Sections 9002 through 9004 of Subtitle I.

Under Section 9006 of Subtitle I, EPA is authorized to take enforcement actions and assess penalties against violators of requirements promulgated under Subtitle I, including technical standards and financial responsibility requirements.[1] In particular, Section 9006(a) provides the authority to issue administrative orders requiring compliance within a reasonable specified time period. All such orders will be processed within the Agency according to the Consolidated Rules of Practice (CROP).[2] Pursuant to Section 9006(d), a Section 9006 compliance order may assess a civil penalty, provided that the penalty does not exceed $10,000 for each tank for each day of violation of the technical standards

[1] These are contained in two separate rules: the UST Technical Standards Rule, 40 CFR Part 280, Subparts A through G (promulgated September 23, 1988) and the UST Financial Responsibility Rule, 40 CFR Part 280, Subpart H (promulgated October 26, 1988).

[2] 40 CFR Part 22, "The Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation or Suspension of Permits." The CROP was extended to cover administrative enforcement actions under Section 9006 (see 53 FR 5373, February 24, 1988).

and financial responsibility rules.[3] This document presents guidance for determining the appropriate civil penalty amount for an administrative complaint and order, and discusses use of penalties in field citations.

In addition to administrative enforcement actions, EPA may initiate judicial enforcement actions under Section 9006 to compel compliance with Subtitle I's statutory and regulatory requirements. EPA's judicial enforcement actions are processed through Federal courts and are reserved for violations of administrative orders. Under such actions, EPA is authorized to seek judicial penalties of up to $25,000 for each day of continued noncompliance with an administrative order issued under Section 9006 or a corrective action order issued under Section 9003. In these cases, Agency personnel should seek the maximum penalty.[4]

1.2 OVERVIEW OF THE UST ENFORCEMENT PROCESS

The UST/LUST Enforcement Procedures Guidance Manual (OSWER Directive 9610.11, July 1990) describes the range of enforcement actions that may be taken in response to an UST violation. These enforcement options vary from initial responses, such as warning letters or notices of violation (NOVs), which encourage compliance, to more stringent actions, such as administrative orders and judicial injunctions, which compel compliance and, if appropriate, penalize violators. Exhibit 1 presents the various enforcement actions that may be taken once a violation of an UST requirement is identified. In general, enforcement personnel will take the least costly enforcement action that appears necessary to achieve compliance and create a strong deterrent, and will escalate the severity of the enforcement response if the initial action fails.

As shown in Exhibit 1, there are two approaches to taking enforcement actions. Under the "traditional" approach, enforcement personnel may initially respond to a discovered violation by issuing a warning letter or NOV to inform the owner/operator of the violation, explain what actions need to be taken, and indicate possible consequences if the owner/operator fails to achieve compliance. If necessary, enforcement personnel may then meet with the owner/operator to negotiate an agreed-upon course of action for the owner/operator to follow to achieve compliance. However, for recalcitrant violators, or where violations pose a threat to human health and the environment, enforcement personnel will typically issue administrative complaints or take judicial action. To provide a deterrent effect, an administrative complaint may include an initial penalty target figure. Upon receipt of the complaint, a violator may pay the penalty specified, request an informal settlement conference, and/or request an administrative hearing. Regardless of the violator's response, the outcome generally will be a final penalty that the violator must pay or else face judicial prosecution. Exhibit 1 shows where the target and final penalties appear in the enforcement process.

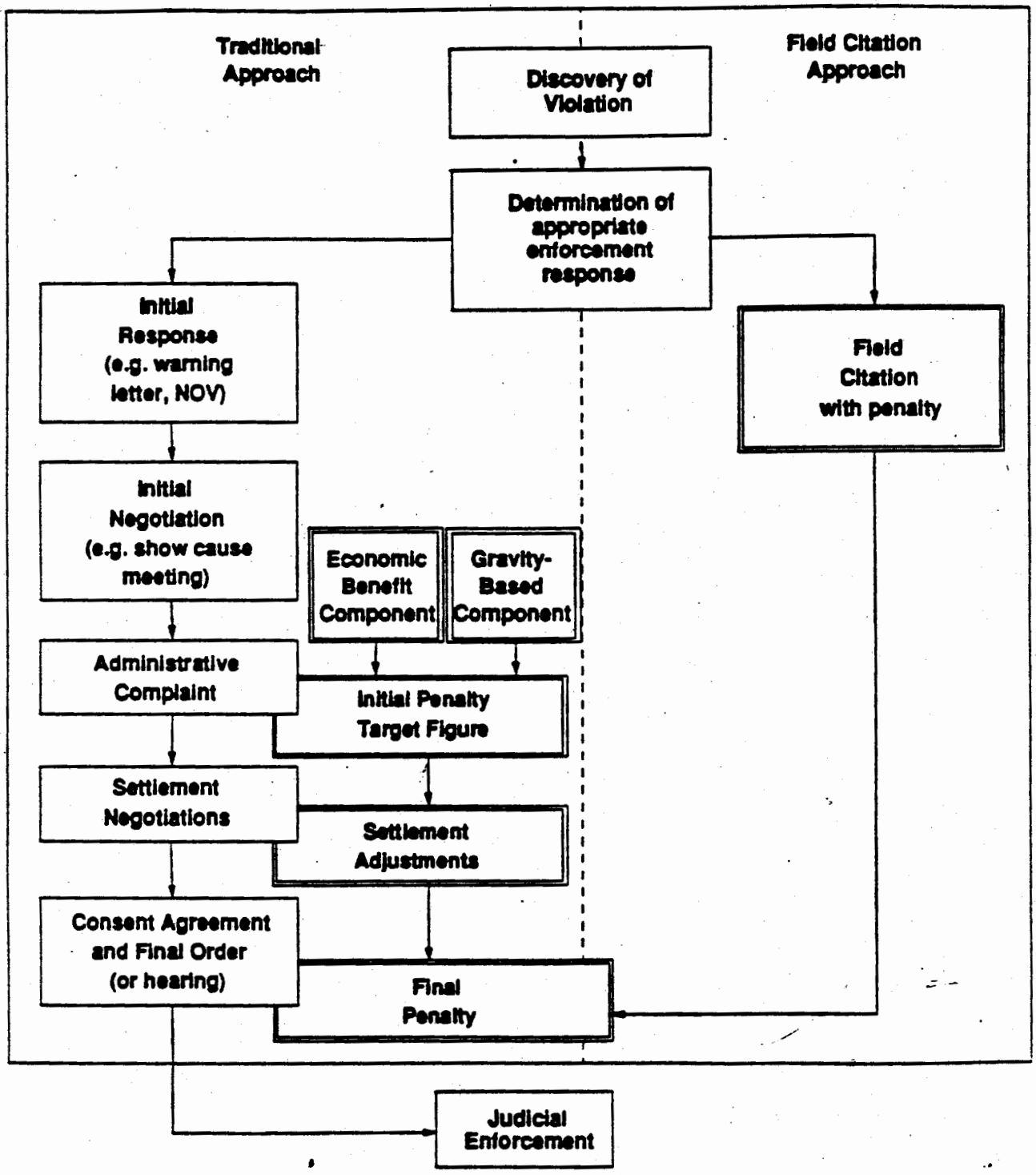
As an alternative to the traditional approach, enforcement personnel may initiate an enforcement response using field citations (see Chapter 5). Field citations, similar to traffic tickets, are modified compliance orders issued by inspectors on-site at a facility when violations are discovered. However, the use of field citations is generally limited to first-time violators when compliance is expected and when the violation does not pose an immediate threat to human health and the environment. A typical

[3] This $10,000 limit also applies to violations of the Interim Prohibition provisions and any requirement of an approved State program. For violations of the May 1985 (statutory) notification requirements, the penalty may not exceed $10,000 for each tank.

[4] This guidance is in no way intended to limit the penalty amounts sought in civil judicial actions. In settling judicial cases, however, the Agency may use the narrative penalty assessment criteria set forth in this guidance to determine or justify the penalty amount that the Agency agrees to accept in settlement.

Exhibit 1

Overview of Enforcement Response Options



NOTE: This exhibit presents an overview of enforcement options only, and does not mandate a certain order of action. Actual enforcement actions may begin at any point in the process.

field citation will not only require that the violator take actions to achieve compliance, but will also assess a pre-established, non-negotiable penalty. This penalty is usually fairly low (e.g., $100) to encourage prompt payment and response. In paying the citation penalty, the violator gives up the right to appeal and consents to the requirements specified; thus, the citation is analogous to the final penalty that results from settlement negotiations. This alternative path to arriving at a penalty is also shown in Exhibit 1. If the owner/operator fails to respond to the field citation, enforcement personnel may resort to enforcement actions under the traditional approach or may initiate judicial actions.

Under the UST program's franchise approach, States will undertake most of the enforcement actions. However, in certain cases (e.g., where an owner/operator is particularly recalcitrant or the State lacks sufficient enforcement authority), Federal assistance may be needed. In such cases, the Regional office may omit initial, informal responses and proceed directly with administrative or judicial actions. However, U.S. EPA enforcement also may be needed at the beginning of an enforcement case in certain circumstances (e.g., in States without active enforcement programs or on Indian Lands). In such cases, Regional enforcement personnel may begin with either the traditional responses or may determine that it is appropriate to use field citations.

1.3 UST PENALTY ASSESSMENT FRAMEWORK

This document provides guidance on calculating penalties to be used in the administrative enforcement actions described above. Consistent with the U.S. EPA's Policy on Civil Penalties, penalties assessed under this methodology are intended to achieve the following goals:[5]

- Encourage timely resolution of environmental problems;
- Support fair and equitable treatment of the regulated community; and
- Deter potential violators from future violations.

Exhibit 2 provides an overview of the major components used to set penalties at levels that will achieve these goals. Specifically, to deter the violator from repeating the violation and to deter other potential violators from failing to comply, the penalty must place the violator in a worse position economically than if he or she had complied on time. Such deterrence is achieved by:

(1) Removing any significant economic benefit that the violator may have gained from noncompliance (the "economic benefit component"); and

(2) Charging an additional amount, based on the specific violation and circumstances of the case, to penalize the violator for not obeying the law (the "gravity-based component").

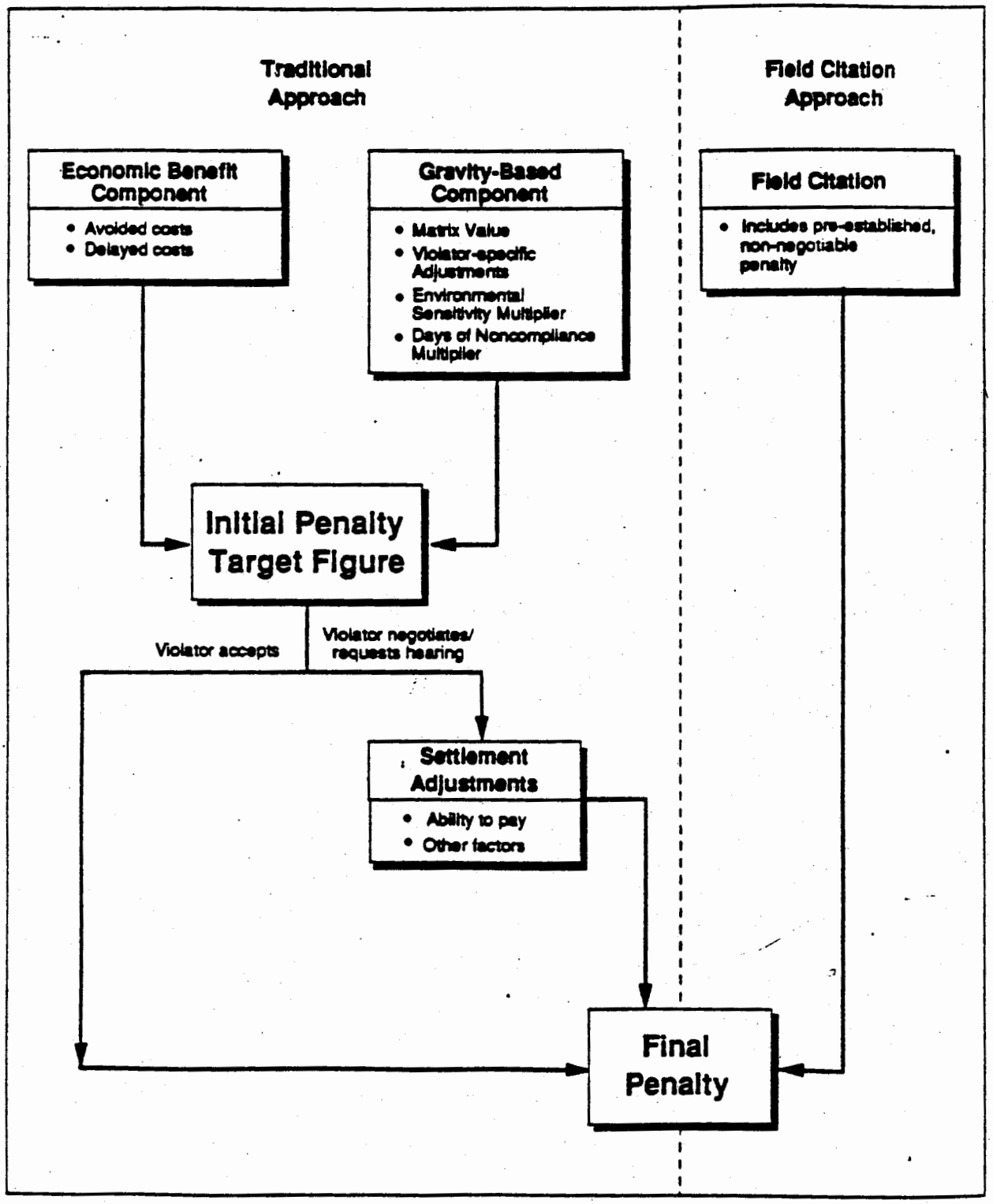
The procedures for determining the economic benefit component and gravity-based component are discussed in Chapters 2 and 3, respectively. Furthermore, to support fair and equitable treatment of the regulated community, the penalty must allow for adjustments to take into account legitimate differences between similar cases. Thus, under this methodology, the gravity-based component incorporates adjustments that reflect the specific circumstances of the violation, the violator's background and actions, and the environmental threat posed by the situation.

---

[5] The "EPA Policy on Civil Penalties" (EPA General Enforcement Policy #GM-21, February 1984) and the "Framework for Statute-Specific Approaches to Penalty Assessment" (EPA General Enforcement Policy #GM-22, February 1984) establish a consistent Agency-wide approach to the assessment of civil penalties.

Exhibit 2

Process for Assessing UST Civil Penalties



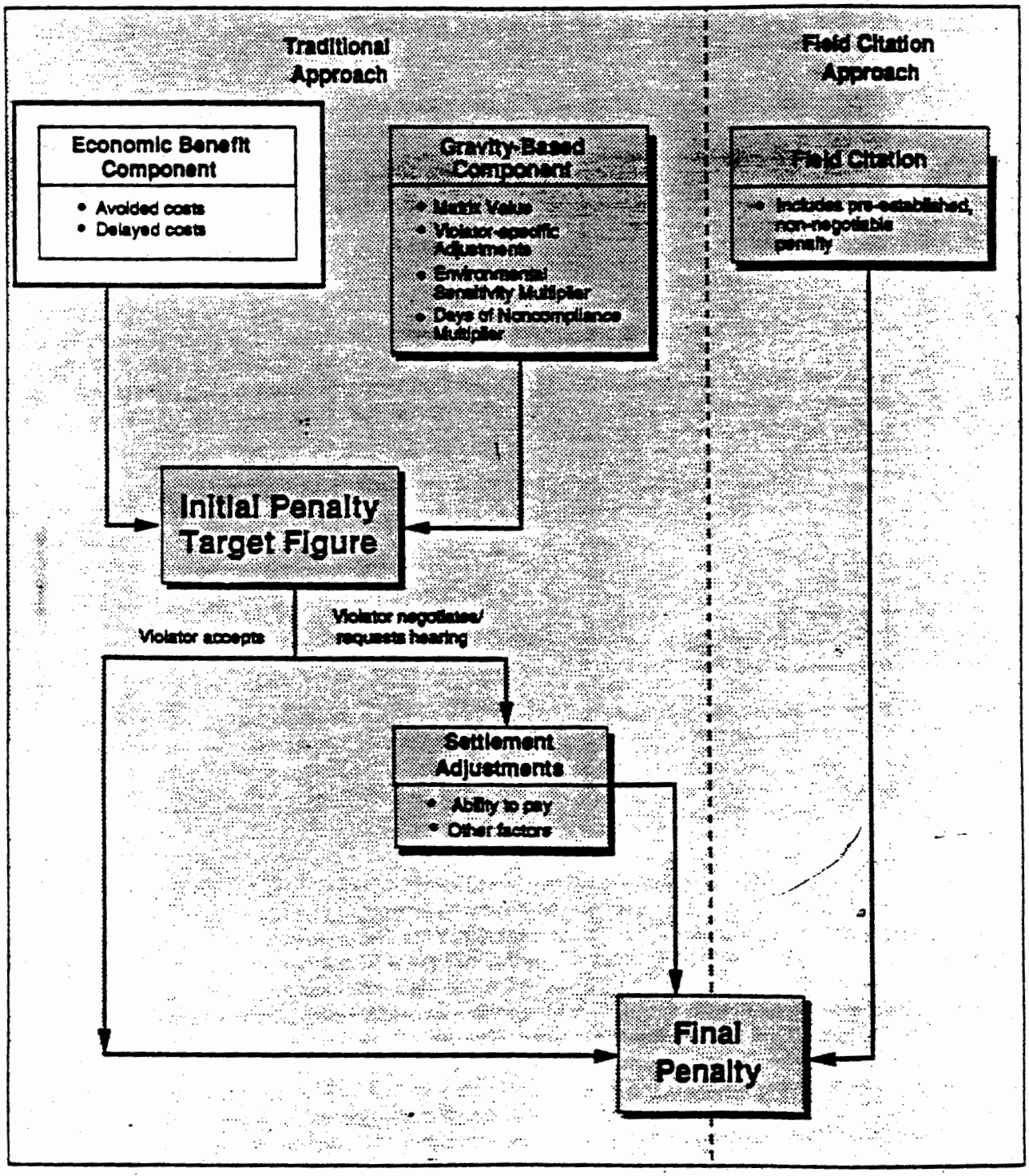
The sum of the economic benefit component and the gravity-based component yields the initial penalty target figure that is assessed in the administrative complaint.[6] For each case that involves more than one violation, the Regional case team will need to decide on the number of counts addressed in the complaint. Each count should be accompanied by an appropriate penalty calculation, and the sum of these penalties will be the initial penalty target figure assessed in the complaint. Once a complaint is issued, the Agency may enter into settlement negotiations with the owner/operator to encourage timely resolution of the violation. Such negotiations provide the owner/operator with the opportunity to present evidence to support downward adjustments in the penalty. The process of adjusting the penalty during settlement negotiations is addressed in Chapter 4. The outcome of such negotiations will be the final penalty.

For specific types of cases, enforcement personnel may issue field citations, which assess penalties while encouraging a swift return to compliance without a drawn-out appeals process. The use of field citations to assess penalties is addressed in Chapter 5.

[6] However, it should be remembered that the sum of the gravity-based component plus the economic benefit component cannot be greater than the statutory maximum of $10,000 for each tank for each day of violation of the technical standards and financial responsibility regulations.

Chapter 2

Determining the Economic Benefit Component



CHAPTER 2. DETERMINING THE ECONOMIC BENEFIT COMPONENT

As explained in the preceding chapter, to ensure that the penalty deters potential violators, the initial penalty target figure assessed in the complaint must include two fundamental components:

- Economic Benefit Component, which removes any significant profit from noncompliance; and
- Gravity-Based Component, which imposes an assessment to penalize current and/or past noncompliance.

This chapter discusses the process for determining the economic benefit component. The gravity-based component is discussed in Chapter 3.

2.1 DEFINITION OF ECONOMIC BENEFIT COMPONENT

The economic benefit component represents the economic advantage that a violator has gained by delaying capital and/or non-depreciable costs and by avoiding operational and maintenance costs associated with compliance.[7] The total economic benefit component is based on the benefit from two sources: (1) avoided costs; and (2) delayed costs. All penalties assessed must include the full economic benefit unless the benefit is determined to be "incidental," i.e., less than $100.

Economic Benefit Component = Avoided Costs + Delayed Costs

Avoided costs are the periodic, operation and maintenance expenditures that should have been incurred, but were not.

Delayed costs are the expenditures that have been deferred by the violation, but will be incurred to achieve compliance.

The Agency-wide penalty policy prescribes the use of two methods for calculating a violator's economic benefit from noncompliance:[8] (1) the rule-of-thumb approach; and (2) the software program

[7] This policy does not outline a methodology for the recovery, as a measure of economic benefit, of profits proximately attributable to illegal or non-compliant activities. Because the Federal UST regulations do not include a permitting process, the Agency is not presently aware of situations where such profits would be realized, or where we would expect to seek recovery of such profits as a measure of economic benefit in the Federal UST program. Should EPA determine that the recovery of such profits is appropriate in a particular case, the Agency will calculate such profits in a manner consistent with the RCRA Civil Penalty Policy (October 1990).

[8] Revised guidelines for calculating the economic benefit from noncompliance are incorporated into a memorandum from Courtney Price (Assistant Administrator for Enforcement and Compliance Monitoring) entitled, "Guidance for Calculating the Economic Benefit of Noncompliance for a Civil Penalty Assessment" (November 5, 1984).

called BEN.[9] The rule-of-thumb approach (described in the sections that follow) should be used for making an initial estimate of the economic benefit of noncompliance. If the initial estimate is less than $10,000, the rule-of-thumb calculation may be used as a basis for the economic benefit assessed in the penalty. If, however, the estimate indicates that the economic benefit is greater than $10,000, the BEN model should be used. The BEN model should also be used if the violator rejects the rule-of-thumb calculation.

The BEN model, which is accessible by computer from anywhere in the country, uses a financial analysis technique known as "discounting" to determine the net present value of economic gains from noncompliance. BEN determines the economic benefit for an individual violator based on 12 specific factors, or inputs, including the violator's initial capital investment, nondepreciable expenditures, and operation and maintenance costs. For some inputs, such as income tax rate, annual inflation rate, and discount rate, BEN will provide standard values if the user does not have actual figures. This use of standard values allows for national consistency in determining economic benefit. Because the majority of UST violations will be associated with an economic benefit of less than $10,000, the rule-of-thumb approach will be used in most cases.

The procedures for calculating the economic benefit of noncompliance using the rule-of-thumb approach are described below. Because of the fundamental differences between avoided and delayed costs, the process for determining the economic benefit component will depend on the type of cost involved. The sections that follow describe methods for calculating each type of cost.

2.2 AVOIDED COSTS

Avoided costs are the operation and maintenance expenditures that are averted by the violator's failure to comply. These are considered to be avoided because they will never be incurred even if the violator comes into compliance. For example, a violator who has failed to maintain product inventory records in the past never will have to make up for the costs saved, even if he is directed to start maintaining inventory records now. Other examples of avoided costs include: (1) failure to conduct a required periodic test; (2) failure to obtain financial assurance by the phase-in date; and (3) failure to conduct periodic maintenance of equipment. The violator's benefit from avoided costs is generally expressed as the avoided expenditures plus the interest potentially earned on the money not spent.

DETERMINING AVOIDED COSTS

$$\text{Avoided Costs} = \text{Avoided Expenditures} + \text{Avoided Expenditures} \times \text{Interest} \times \frac{\text{Number of Days}}{365 \text{ Days}} \times (1 - \text{Marginal Tax Rate})$$

Avoided Expenditures are estimated using local, comparable costs.
Interest is the equity discount rate provided in the BEN model (currently 18.1 percent).
Number of Days is from the date of noncompliance to the date of compliance.
365 Days is the number of days in a year.
Marginal Tax Rate is based on corporate tax rates or financial responsibility compliance class.

[9] For information, contact the BEN/ABEL Coordinator in the Office of Enforcement at the U.S. EPA Headquarters by phoning (202) 475-6777 or FTS 475-6777.

To determine the value of the interest, compounded annually, the equity discount rate should be used. This represents the risk-free rate (T-bill) plus the cost of financing for pollution control equipment. This rate can be obtained by calling the EPA Office of Enforcement or by accessing the BEN computer model.[10] As of the beginning of FY91, the equity discount rate was 18.1 percent. When used in the formula, this number should be expressed as a decimal and not a percentage (e.g., 0.181, instead of 18.1%).

The marginal tax rate (MTR) used in calculating the avoided costs will vary depending on the size of the business. Exhibit 3 provides a list of appropriate tax rates based on the facility or company's taxable income. As with the interest rate, this number should be expressed as a decimal, not a percentage (e.g., 0.15 instead of 15%). To determine the taxable income, enforcement staff should contact EPA's National Enforcement Investigations Center (NEIC) to determine whether the business in violation is listed in the Dun and Bradstreet Business Information Report data base.[11] The data base provides information on the annual incomes of a large number of companies across the country, including the smaller, "Mom and Pop" businesses. Although most of the incomes listed in the data base are those reported to Dun and Bradstreet, the data base also includes some estimated incomes for companies that have not reported.

If information on annual income cannot be obtained from NEIC, enforcement staff may use the company's financial responsibility compliance class as a basis for determining the appropriate marginal tax rate, as follows:

MARGINAL TAX RATES BASED ON FINANCIAL RESPONSIBILITY COMPLIANCE CLASS

Compliance Class [a]	Tax Rate
FR Classes 1 & 2	0.34 (34%)
FR Class 3	0.25 (25%)
FR Class 4	0.15 (15%)

[a] Compliance class is determined as follows: Class 1 - large petroleum marketing firms with 1,000 or more USTs or any firm with net worth over $20 million; Class 2 - large and medium-sized petroleum marketing firms with 100 to 999 USTs; Class 3 - smaller petroleum marketing firms with 13 to 99 USTs; and Class 4 - very small marketing firms with 1 to 12 USTs or less than 100 USTs at one site, all other firms with net worth of less than $20 million, and municipalities.

In the absence of specific information on the violator's FR compliance class, enforcement staff should assume that the violator is in FR Class 4 (which will result in the highest penalty).

[10] To obtain the equity discount rate from the Office of Enforcement, or to access BEN, call the BEN/ABEL coordinator at (202) 475-6777 or FTS 475-6777.

[11] For information from the Dun and Bradstreet data base call NEIC at (303) 236-3219 or FTS 8-776-3219. Using information on the violator's name and location (city and State), NEIC staff can search the data base for information on the company's annual income.

Exhibit 3

Applicable Tax Rates for Determining Avoided Costs

MARGINAL TAX RATE BASED ON FEDERAL CORPORATE TAX RATES
(from 1989 U.S. Master Tax Guide):

Taxable income over	Not over	Tax rate
$0	$50,000	15%
$50,000	$75,000	25%
$75,000	$100,000	34%
$100,000	$335,000	39%*
$335,000	.....	34%

*An additional 5% tax is applied to income between $100,000 and $335,000 to phase out the benefits of the graduated rates in that income range.

The marginal tax rate is applied to each increment of income specified above (e.g., for an income of $75,000, 15% is applied to the first $50,000 and 25% to the next $25,000). The weighted average tax rates below have been calculated for each $10,000 increment in income to reflect the actual tax burden at each income level. These values will facilitate the determination of penalty amounts by eliminating the need to calculate the tax burden on each increment of marginal taxable income. To find the weighted tax rate, round the estimated taxable income to the nearest $10,000 and use the tax rate indicated in the table.

WEIGHTED AVERAGE TAX RATES BY INCOME LEVEL**

Taxable Income not greater than	Tax Rate	Taxable Income not greater than	Tax Rate
$50,000	0.15	$200,000	0.31
$60,000	0.17	$210,000	0.31
$70,000	0.18	$220,000	0.31
$80,000	0.19	$230,000	0.32
$90,000	0.21	$240,000	0.32
$100,000	0.22	$250,000	0.32
$110,000	0.24	$260,000	0.33
$120,000	0.25	$270,000	0.33
$130,000	0.26	$280,000	0.33
$140,000	0.27	$290,000	0.33
$150,000	0.28	$300,000	0.33
$160,000	0.29	$310,000	0.34
$170,000	0.29	$320,000	0.34
$180,000	0.30	$330,000	0.34
$190,000	0.30	≥ $340,000	0.34

**This table includes the additional 5% tax applied to incomes between $100,000 and $335,000.

2.3 DELAYED COSTS

Delayed costs are the capital expenditures and one-time non-depreciable costs that have been deferred because the violator failed to comply with the requirements. Examples of delayed costs include: (1) failure to install required equipment, such as cathodic protection; and (2) failure to clean up a spill. These expenditures are considered only to be delayed, and not avoided altogether, because the violator will eventually have to incur these costs to come into compliance. The benefit from delayed costs is generally expressed as only the return on investment that could have been earned on the money not spent.

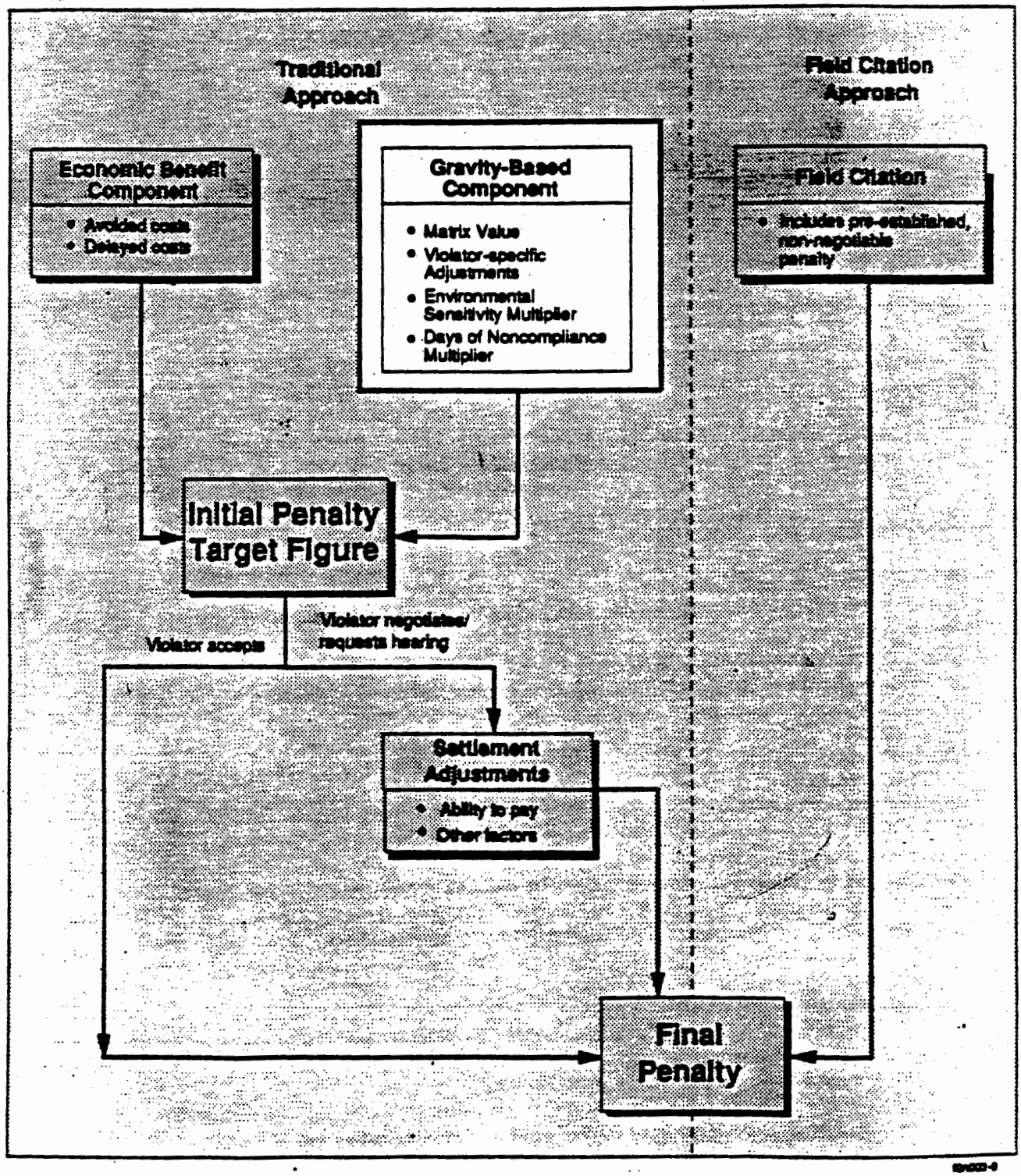
DETERMINING DELAYED COSTS

$$\text{Delayed Costs} = \frac{\text{Delayed Expenditures} \times \text{Interest} \times \text{Number of Days}}{\text{365 Days}}$$

Delayed Expenditures are estimated using local, comparable costs.
Interest is the equity discount rate used in the BEN model (currently 18.1 percent).
Number of Days is from the date of noncompliance to the date of compliance.
365 Days is the number of days in a year.

For delayed costs there is no computation of the tax rate. Although there may be a modest tax consequence for the violator because of delayed costs, this effect was deemed to be insignificant. Furthermore, such a tax consequence only would be incurred if the violation were to span more than one of the violator's tax years.

Chapter 3
Determining the Gravity-Based Component



CHAPTER 3. DETERMINING THE GRAVITY-BASED COMPONENT

The second component of a penalty, and the one that serves to deter potential violators, is the gravity-based component. The purpose of the gravity-based component is to ensure that violators are economically disadvantaged relative to owner/operators of those facilities in compliance, and to penalize current and/or past noncompliance. The gravity-based component consists of four elements:

- Matrix Value (Section 3.1);
- Violator-Specific Adjustments to the Matrix Value (Section 3.2);
- Environmental Sensitivity Multiplier (Section 3.3); and
- Days of Noncompliance Multiplier (Section 3.4).

The gravity-based component is then added to the economic benefit component to arrive at the initial penalty target figure assessed in the complaint.

DETERMINING THE GRAVITY-BASED COMPONENT

Gravity-Based Component	=	Matrix Value	x	Violator-Specific Adjustments	x	Environmental Sensitivity Multiplier	x	Days of Noncompliance Multiplier

Matrix Value is based on potential for harm and deviation from the requirement.

Violator-Specific Adjustments to the matrix value are based on violator's cooperation, willfulness, history of noncompliance, and other factors.

Environmental Sensitivity Multiplier (ESM) is a value based on the environmental sensitivity associated with the location of the facility.

Days of Noncompliance Multiplier (DNM) is a value based on the number of days of noncompliance.

If the complaint results in settlement negotiations, certain factors used to adjust the matrix value may be re-assessed during negotiations to determine whether a downward adjustment in the gravity-based component is appropriate. In general, it is the violator's responsibility to provide evidence in support of reducing the penalty assessment during the settlement stage (see Chapter 4).

3.1 DETERMINING THE MATRIX VALUE

The first step in determining the gravity-based component is determining the initial matrix value. The matrix value is based on the following two criteria:

- Extent of deviation from requirement - An assessment of the extent to which the violation deviates from the UST statutory or regulatory requirements.

- Actual or potential harm - An assessment of the likelihood that the violation could (or did) result in harm to human health or the environment and/or has (or had) an adverse effect on the regulatory program.

A matrix has been developed in which these two criteria form the axes (Exhibit 4). Three gravity levels apply to each of these criteria – major, moderate, and minor – and form the grid of the matrix. Thus, the matrix has nine cells, each of which contains a penalty amount. The specific cell to be used in determining the matrix value is identified by selecting a gravity level for both factors. As a guide to determining the appropriate gravity level, Appendix A provides a list of selected violations of the Federal UST requirements and the associated deviation from the requirements and potential for harm.

Based on the type of violation (see Appendix A), penalties will be assessed on a per-tank basis if the specific requirement or violation is clearly associated with one tank (e.g., tank upgrading). If the requirement addresses the entire facility (e.g., recordkeeping practices), the penalty will be assessed on a per-facility basis. For requirements that address piping, the unit of assessment will depend on whether the piping is associated with one tank or with more than one tank. Appendix A indicates the suggested unit of assessment for specific violations.

3.1.1 Extent of Deviation from Requirements

The first factor in determining the matrix value is the extent of deviation from the requirements. The categories for extent of deviation from the requirements are the following:

- Major - The violator deviates from the requirements of the regulation or statute to such an extent that there is substantial noncompliance. An example is installing a bare steel tank without cathodic protection.

- Moderate - The violator significantly deviates from the requirement of the regulation or statute, but to some extent has implemented the requirement as intended. An example is installing improperly constructed cathodic protection.

- Minor - The violator deviates slightly from the regulatory or statutory requirements, but most of the requirements are met. An example is failing to keep every maintenance record on properly constructed cathodic protection.

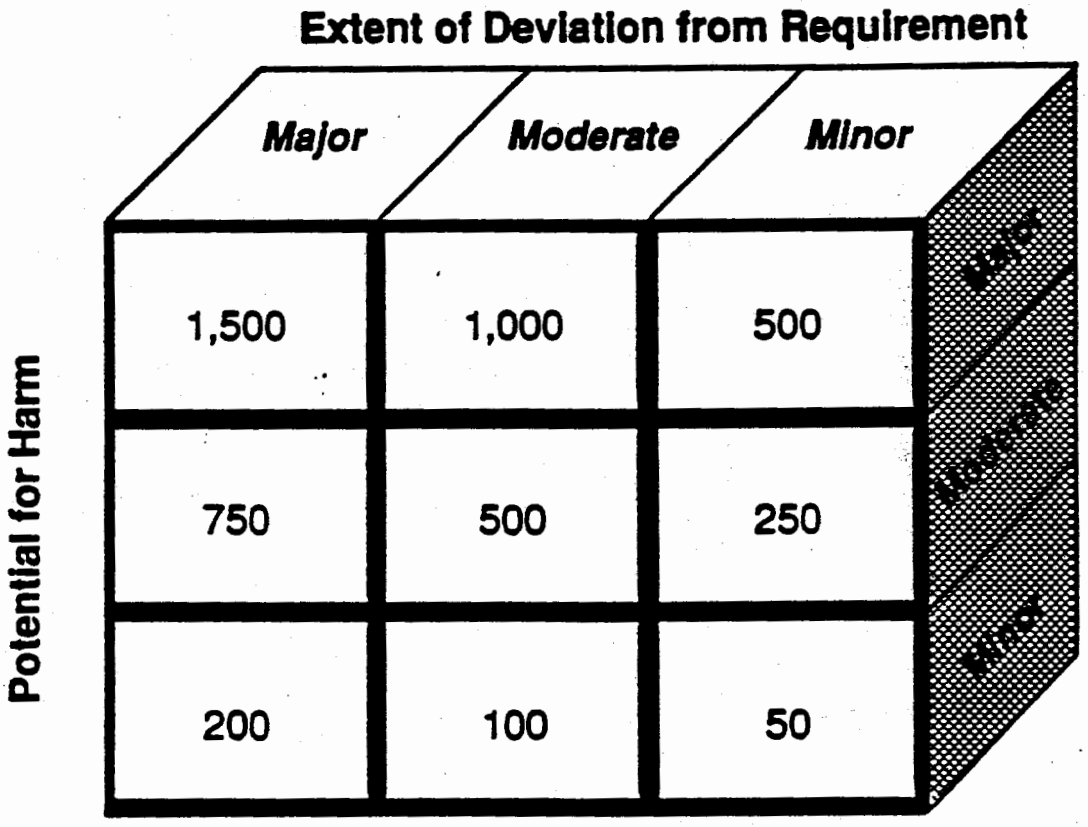
3.1.2 Potential for Harm

The second criterion for determining the matrix value of a violation is the extent to which the owner/operator's actions resulted in, or were likely to result in, a situation that could cause harm to human health or the environment. When determining this factor, it is the potential in each situation that is important, not solely whether the harm has actually occurred. Violators should not be rewarded with lower penalties simply because no harm has occurred. The potential extent of this harm, if it were to occur, is addressed by the environmental sensitivity multiplier, discussed in Section 3.3 of this chapter.

The potential-for-harm factor will also be applied to violations of administrative requirements (e.g., recordkeeping and notification requirements) that are integral to the regulatory program. For violations of these requirements, enforcement personnel should consider the "importance" of the requirement violated. For example, failure to submit tank notification data may be considered to have significant potential for harm because the Agency has few other sources of information on the location of USTs.

Exhibit 4

Matrix Values for Determining the Gravity-Based Component of a Penalty



NOTE: These amounts constitute the matrix value only. They are not the initial penalty target figure. The initial penalty target figure is calculated as follows:

Initial Penalty Target Figure = Economic Benefit Component + (*MATRIX VALUE* x Violator-Specific Adjustments x Environmental Sensitivity Multiplier x Days of Noncompliance Multiplier)

For purpose of this guidance, the categories for potential for harm are the following:

- Major - The violation causes or may cause a situation resulting in a substantial or continuing risk to human health and the environment and/or may have a substantial adverse effect on the regulatory program. Examples are: (1) improperly installing a fiberglass reinforced plastic tank (because a catastrophic release may result); or (2) failing to provide adequate release detection by the specified phase-in date (because without release detection a release may go unnoticed for a lengthy period of time with detrimental consequences).

- Moderate - The violation causes or may cause a situation resulting in a significant risk to human health and the environment and/or may have a significant adverse effect on the regulatory program. An example would be installing a tank that fails to meet tank corrosion protection standards (because it could result in a release, although the use of release detection is expected to minimize the potential for continuing harm from the release).

- Minor - The violation causes or may cause a situation resulting in a relatively low risk to human health and the environment and/or may have a minor adverse effect on the regulatory program. An example would be failing to provide certification of UST installation (assuming that the installation was done correctly).

3.2 VIOLATOR-SPECIFIC ADJUSTMENTS

In general, adjustments to the matrix value may be made at both the pre-negotiation and settlement stages of penalty assessment to address the unique facts of each case and to resolve the case quickly. Prior to settlement negotiations, enforcement personnel have the discretion to use any relevant information to adjust the matrix value upwards or downwards. These adjustments are solely at the discretion of EPA enforcement personnel.

Specifically, to ensure that penalties are assessed in a fair and consistent manner, and take into account case-specific differences, enforcement personnel have the option of adjusting the matrix value based on any information known about the violator's: (1) degree of cooperation or noncooperation; (2) degree of willfulness or negligence; (3) history of noncompliance; and (4) other unique factors.

VIOLATOR-SPECIFIC ADJUSTMENTS TO THE MATRIX VALUE

Adjustment Factor	Range of Percentage Adjustment
Degree of Cooperation/Noncooperation	Between 50% increase and 25% decrease
Degree of Willfulness or Negligence	Between 50% increase and 25% decrease
History of Noncompliance	Up to 50% increase only
Other Unique Factors	Between 50% increase and 25% decrease

The sections that follow discuss these four adjustment factors. In addition, the matrix value should be adjusted to reflect the environmental sensitivity and the days of noncompliance, which are discussed in Sections 3.3 and 3.4, respectively. Subsequent adjustments made during the settlement stage, including adjustments for inability to pay, are discussed in Chapter 4.

To ensure that the penalty maintains a deterrent effect, enforcement staff should consider adjustments toward increased penalties in all cases (i.e., make upwards adjustments to the matrix value). It is up to the violator to present information during settlement that mitigates use of such upward adjustments. However, to ensure that penalties are calculated fairly and consistently, any upwards adjustment may be made only if the circumstances of the case warrant such adjustments. Furthermore, for any adjustments made to the matrix value, justification must be provided on the penalty assessment worksheet (see Appendix B).

3.2.1 Degree of Cooperation/Noncooperation

The first factor that may be considered in adjusting the matrix value is the violator's cooperation or good faith efforts in response to enforcement actions. In adjusting for the violator's degree of cooperation or noncooperation, enforcement staff may consider making upward adjustments by as much as 50 percent and downward adjustments by as much as 25 percent of the matrix value.

In order to have the matrix value reduced, the owner/operator must demonstrate cooperative behavior by going beyond what is minimally required to comply with requirements that are closely related to the initial harm addressed. For example, an owner/operator may indicate a willingness to establish an environmental auditing program to check compliance at other UST facilities, if appropriate, or may demonstrate efforts to accelerate compliance with other UST regulations for which the phase-in deadline has not yet passed.[12] Because compliance with the regulation is expected from the regulated community, no downward adjustment may be made if the good faith efforts to comply primarily consist of coming into compliance. That is, there should be no "reward" for doing now what should have been done in the first place. On the other hand, lack of cooperation with enforcement officials can result in an increase of up to 50 percent of the matrix value.

3.2.2 Degree of Willfulness or Negligence

The second adjustment that may be made to the matrix value is for willfulness or negligence, which takes into account the owner/operator's culpability and intentions in committing the violation. In assessing the degree of willfulness or negligence, the following factors may be considered:

- How much control the violator had over events constituting the violation (e.g., whether the violation could have been prevented or was beyond the owner/operator's control, as in the case of a natural disaster);
- The foreseeability of the events constituting the violation;
- Whether the violator made any good faith efforts to comply and/or took reasonable precautions against the events constituting the violation; and
- Whether the violator knew or should have known of the hazards associated with the conduct; and
- Whether the violator knew of the legal requirement that was violated (resulting in an upward adjustment only).[13]

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[12] For information on establishing environmental auditing programs, see "EPA Policy on the Inclusion of Environmental Auditing Provisions in Enforcement Settlements," U.S. EPA, Office of Enforcement and Compliance Monitoring, November 1986.

[13] Lack of knowledge of the legal requirements may not be used as a basis to reduce the matrix value. Rather, informed violation of the law should serve to increase the matrix value.

In certain circumstances, the amount of control that the violator has over how quickly the violation is remedied also can be relevant. Specifically, if correction of a violation is delayed by factors that the violator clearly can show were not reasonably foreseeable and out of his or her control, the penalty assigned for the duration of noncompliance may be reduced (see Section 3.4), although the original penalty for noncompliance should not be. In assessing the degree of willfulness, enforcement staff may consider making upward adjustments by as much as 50 percent and downward adjustments by as much as 25 percent of the matrix value.

3.2.3 History of Noncompliance

The third factor to be considered in adjusting the matrix value is the violator's history of noncompliance. Previous violations of any environmental regulation are usually considered clear evidence that the violator was not deterred by previous interaction with enforcement staff and enforcement actions. Unless the current violation was caused by factors entirely out of the control of the violator, prior violations should be taken as an indication that the matrix value should be adjusted upwards. When assessing the history of noncompliance, some of the factors that may be considered are:

- Number of previous violations;
- Seriousness of the previous violations;
- Time period over which previous violations occurred;
- Similarity of the previous violations;
- Enforcement tools utilized (e.g., whether the owner/operator's previous behavior required use of more stringent enforcement actions); and
- Violator's response to the previous violation(s) with respect to correction of the problem.

For purposes of this document, a "prior violation" includes any act or omission for which an accountable enforcement action has occurred (e.g., an inspection that found a violation, a notice of violation, an administrative or judicial complaint, or a consent order). A prior violation of the same or a related requirement would constitute a similar violation.

In cases of large corporations that have many divisions and/or subsidiaries, if the same corporation is involved in the current violation the adjustments for history of noncompliance will apply. In addition, enforcement staff should be wary of a company that changes operators or shifts responsibility for compliance to different persons or organizational units as a way of avoiding increased penalties. A consistent pattern of noncompliance by several divisions or subsidiaries of a corporation may be found, even though the facilities are at different locations. Again, in these situations, enforcement staff may make only upward adjustments to the matrix value by as much as 50 percent.

3.2.4 Other Unique Factors

This guidance allows an adjustment for unanticipated factors that may arise on a case-by-case basis. As with the previous factors, enforcement staff may want to make upward adjustments to the matrix value by as much as 50 percent and downward adjustments by as much as 25 percent for such reasons.

3.3 ENVIRONMENTAL SENSITIVITY MULTIPLIER (ESM)

In addition to the violator-specific adjustments discussed above, enforcement personnel may make a further adjustment to the matrix value based on potential site-specific impacts that could be caused by the violation. The environmental sensitivity multiplier takes into account the adverse environmental effects that the violation may have had, given the sensitivity of the local area to damage posed by a potential or actual release. This factor differs from the potential-for-harm factor (discussed in Section 3.1.2) which takes into account the probability that a release or other harmful action would occur because of the violation. The environmental sensitivity multiplier addressed here looks at the actual or potential impact that such a release, once it did occur, would have on the local environment and public health.

To calculate the environmental sensitivity multiplier, enforcement personnel must first determine the sensitivity of the environment. For purposes of this document, the environmental sensitivity will be either low, moderate, or high. Factors to consider in determining the appropriate sensitivity level include:

- Amount of petroleum or hazardous substance potentially or actually released (e.g., size of the tanks and number of tanks at the facility that were involved in the violation, as they relate to the potential volume of materials released);
- Toxicity of petroleum or hazardous substance released;
- Potential hazards presented by the release or potential release, such as explosions or other human health hazards;
- Geologic features of the site that may affect the extent of the release and may make remediation difficult;
- Actual or potential human or environmental receptors, including:
  - Likelihood that release may contaminate a nearby river or stream;
  - Number of drinking water wells potentially affected;
  - Proximity to environmentally sensitive areas, such as wetlands; and
  - Proximity to sensitive populations, such as children (e.g., in schools).
- Ecological or aesthetic value to environmentally sensitive areas.

Thus, a "low" sensitivity value may be given in a case where one tank containing petroleum is located in clay soil in a semi-residential area where all drinking water is supplied by municipal systems, and where little wildlife is expected to be affected. A moderate sensitivity value may be given if: several tanks were in violation; the geology of the site would allow for some movement of a plume of released substance; and several drinking water wells could have been affected. A high sensitivity value may be given if: a number of tanks (or very large tanks) were involved; there were several potential receptors of the released substance through drinking water wells or contact with contaminated surface water; and the contamination would be difficult to remediate. Each level of sensitivity is given a corresponding multiplier value, as provided below.

DETERMINING THE ENVIRONMENTAL SENSITIVITY MULTIPLIER

Environmental Sensitivity Multiplier (ESM) is based on the potential or actual environmental impact at the site, and is given a corresponding value as follows:

Environmental Sensitivity	ESM
Low	1.0
Moderate	1.5
High	2.0

3.4 DAYS OF NONCOMPLIANCE MULTIPLIER

The final adjustment that may be made to the matrix value takes into account the number of days of noncompliance. To determine the amount of the adjustment, locate the days of noncompliance multiplier (or DNM) in the table below that corresponds to the duration of the violation:

DETERMINING THE DAYS OF NONCOMPLIANCE MULTIPLIER

Days of Noncompliance Multiplier (DNM) is based on the number of days of noncompliance:

Days of Noncompliance	DNM
0 - 90	1.0
91 - 180	1.5
181 - 270	2.0
271 - 365	2.5
Each additional 6 months or fraction thereof	add 0.5

The DNM is then multiplied by the adjusted matrix value and environmental sensitivity multiplier to obtain the gravity-based component of the penalty, as follows:

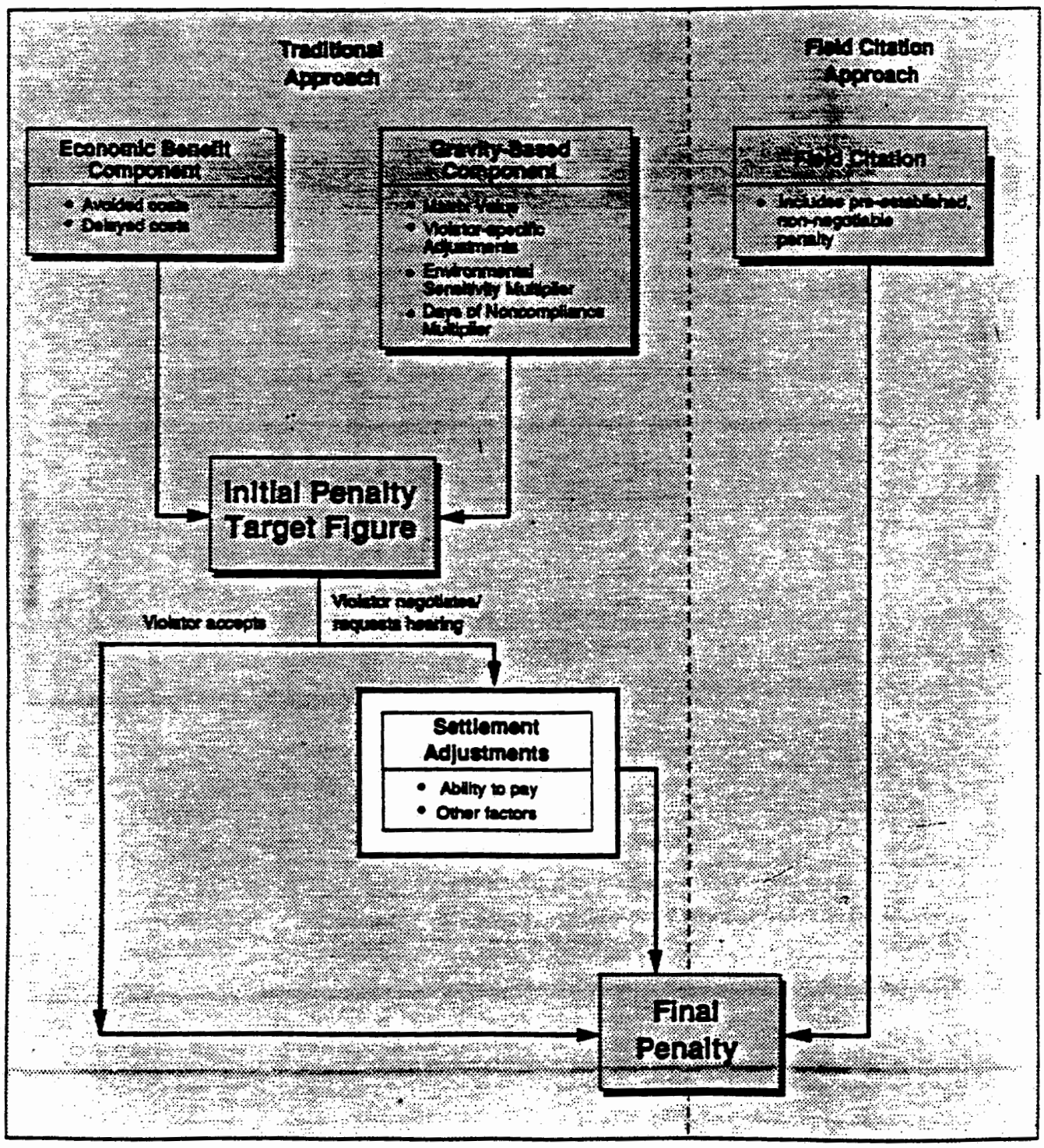
DETERMINING THE GRAVITY-BASED COMPONENT

Gravity-Based Component = Matrix Value x Violator-Specific Adjustments x Environmental Sensitivity Multiplier x Days of Noncompliance Multiplier

The economic benefit component is added to the gravity-based component to form the initial penalty target figure to be assessed in the complaint. As discussed previously, this figure cannot exceed $10,000 for each tank for each day of violation.

Chapter 4

Settlement Adjustments



CHAPTER 4. SETTLEMENT ADJUSTMENTS

After the initial penalty target figure has been presented to the potential violator in a complaint, additional adjustments may be made as part of a settlement compromise. All such adjustments are entirely within the discretion of Agency personnel. The burden is always on the owner/operator to provide evidence supporting any reduction of the penalty.

In response to a complaint, the owner/operator may request an informal conference and/or a hearing to settle the penalty and violation. The Federal Consolidated Rules of Practice (CROP) procedures for administrative actions at 40 CFR Part 22 provide for a settlement conference and a right to a public hearing, giving the owner/operator the opportunity to present data to support a penalty adjustment. At a minimum, enforcement personnel may consider adjustments based on the four violator-specific adjustment factors discussed in Chapter 3, including:

- Degree of cooperation/noncooperation;
- Degree of willfulness or negligence;
- History of noncompliance; and
- Other unique factors.

The settlement adjustment is usually not made to the economic benefit component unless new and better information about the economic benefits is made available. The Agency should maintain a record that includes a statement of the reasons for adjusting the penalty.

In addition to the adjustment factors listed above, and because of the nature of the UST regulated community, one factor that commonly will be discussed during negotiations is the owner/operator's inability to pay. An adjustment may need to be made for inability to pay to ensure fair and equitable treatment of the regulated community. It is important, however, that this reduction not allow the regulated community to regard violations of environmental requirements as a way to save money. Furthermore, a penalty should not be reduced when a violator refuses to correct a violation, has a history of noncompliance, or in cases with egregious violations, e.g., failure to abate a release that is contaminating drinking-water supplies.

The Agency should assume that the owner/operator is able to pay unless the owner/operator demonstrates otherwise. The inability to pay adjustment should be based on the amount of the initial penalty target figure and the financial condition of the business, but it is the owner/operator's responsibility to provide evidence of inability to pay. The owner/operator may provide evidence, such as tax returns, to document his or her claims. In cases when the owner/operator fails to demonstrate inability to pay, the Agency should determine whether the owner/operator is unwilling to pay, in which case no adjustments to the initial penalty target figure should be made. In cases where the owner/operator can successfully demonstrate: (1) that the company is unable to pay; or (2) that payment of all or a portion of the penalty will preclude the violator from achieving compliance, the following options may be considered:

- An installment payment plan with interest;
- A delayed payment schedule with interest;
- An in-kind mitigation activity performed by the owner/operator;
- An environmental auditing program implemented by the owner/operator; or
- Reduction of up to 80 percent of the gravity-based component.

A reduction of the gravity-based component should be considered only after determining that the other four options are not feasible.[14]

In order to evaluate a violator's claim regarding inability to pay, two sources of information are available to determine the likelihood that a company can afford to pay a certain civil penalty:

National Enforcement Investigation Center (NEIC). The NEIC of EPA's Office of Enforcement has developed the Superfund Financial Assessment System that can determine a company's ability to pay. For publicly owned companies, specific financial data is available from NEIC. If investigating a private company, enforcement staff can report financial data to NEIC and it will be keyed into NEIC's computerized economic computer model for analysis.[15]

ABEL. EPA's Office of Enforcement developed the "ABEL" model as part of an ongoing effort to evaluate the financial health of firms involved in enforcement proceedings. The ABEL model has been used by EPA, Regions, and States to evaluate a firm's claim regarding inability to pay based on 21 inputs gathered from the company's Federal income tax returns from the previous 3 years. Enforcement staff may access ABEL by computer dial-up on a personal computer with a modem and an ABEL user ID number.[16] In addition, OUST has developed a PC-based model called ABELPRO which is a simplified version of ABEL that is run on a PC using a LOTUS spreadsheet or Macintosh Excel.[17]

[14] The Agency is currently developing cross-media guidance on environmental mitigation projects which, when final, will supersede the "Alternative Payments" section of the Agency's February 16, 1984 penalty policy (#GM-22). Until the revised Agency guidance is finalized, the Agency's 1984 penalty policy should be consulted for additional guidance.

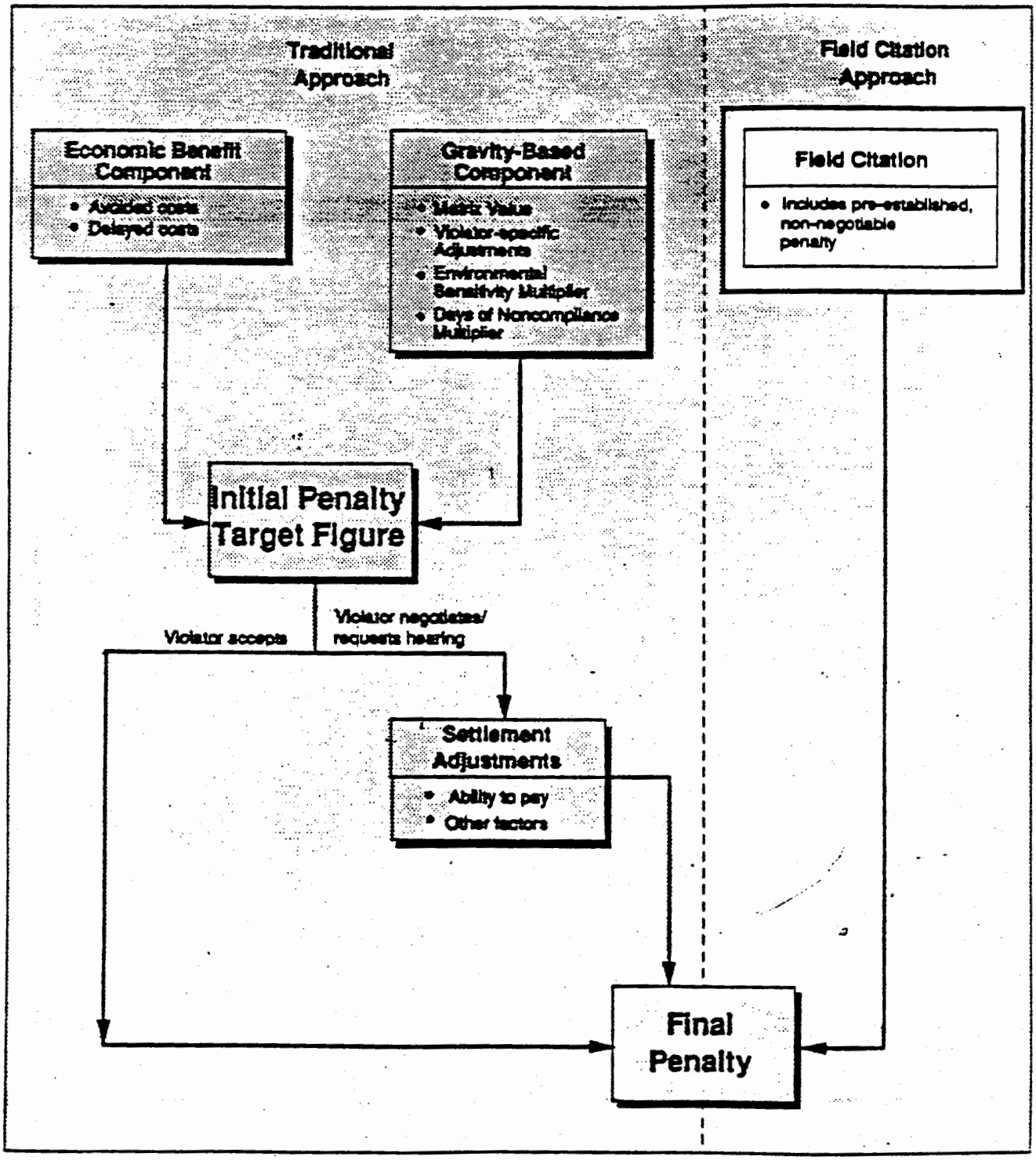
[15] For further information, contact the NEIC at (303) 236-5100 or FTS 8-776-5100.

[16] To obtain the ABEL User's Manual and user ID numbers for computer hookup, contact the BEN/ABEL Coordinator at the U.S. EPA Headquarters, by phoning (202) 475-6777 or FTS 475-6777.

[17] For information, contact the appropriate Regional Desk Officer at U.S. EPA Headquarters' Office of Underground Storage Tanks.

Chapter 5

Use of Field Citations



CHAPTER 5. USE OF FIELD CITATIONS

<Reserved>

The Office of Underground Storage Tanks (OUST) has been exploring the use of field citations as an alternative means of assessing civil penalties and obtaining compliance with UST requirements. Once the manner in which field citations will be used in the Federal UST program has been determined, this policy will be revised to reflect how field citations fit into the UST penalty policy.

APPENDIX A:

MATRIX VALUES FOR SELECTED VIOLATIONS OF FEDERAL UNDERGROUND STORAGE TANK REGULATIONS

APPENDIX A:
MATRIX VALUES FOR SELECTED VIOLATIONS OF FEDERAL UNDERGROUND STORAGE TANK REGULATIONS*

Regulatory Citation	Violation	Unit Assessment[1/]	Deviation from Requirement	Potential for Harm	Matrix Value
SUBPART B -- UST SYSTEMS: DESIGN, CONSTRUCTION, INSTALLATION, AND NOTIFICATION					
	§280.20 Performance standards for new UST systems				
§280.20(a)(1)	Installation of an improperly constructed fiberglass-reinforced plastic tank	(T)	Major	Major	$1500
§280.20(a)(2)	Installation of an improperly designed and constructed metal tank that fails to meet corrosion protection standards	(T)	Major	Moderate	$750
§280.20(a)(2)(i)	Installation of a metal tank with unsuitable dielectric coating	(T)	Major	Moderate	$750
§280.20(a)(2)(ii)	Installation of an improperly designed cathodic protection system for a metal tank	(T)	Moderate	Moderate	$500
§280.20(a)(2)(iii)	Improper installation of cathodic protection system for a metal tank	(T)	Moderate	Moderate	$500
§280.20(a)(2)(iv)	Improper operation and maintenance of tank cathodic protection system	(T)	Major	Moderate	$750
§280.20(a)(3)	Installation of an improperly constructed steel-fiberglass-reinforced-plastic tank	(T)	Major	Moderate	$750
§280.20(b)(1)	Installation of improperly constructed fiberglass-reinforced plastic piping	(P)	Major	Major	$1500
§280.20(b)(2)	Failure to provide any cathodic protection for metal piping	(P)	Major	Moderate	$750
§280.20(b)(2)(i)	Installation of piping with unsuitable dielectric coating	(T)	Major	Moderate	$750
§280.20(b)(2)(ii)	Installation of improperly designed cathodic protection for metal piping	(P)	Moderate	Moderate	$500
§280.20(b)(2)(iii)	Improper installation of cathodic protection system for piping	(P)	Moderate	Moderate	$500
§280.20(b)(2)(iv)	Improper operation and maintenance of cathodic protection system for metal piping	(P)	Major	Moderate	$750

[1/] Unit assessment refers to whether the penalty should be applied per tank (T) or per facility (F). Where the violation applies to piping (P), the assessment will depend on whether the piping is associated with one tank or more than one tank.

NOTE: THIS LIST OF SELECTED VIOLATIONS IS NOT INTENDED TO BE EXHAUSTIVE AND, THEREFORE, MAY NOT INCLUDE ALL POSSIBLE VIOLATIONS

Regulatory Citation	Violation	Unit Assessment[1/]	Deviation from Requirement	Potential for Harm	Matrix Value
SUBPART B -- UST SYSTEMS: DESIGN, CONSTRUCTION, INSTALLATION, AND NOTIFICATION (Continued)					
§280.20(c)(1)	Failure to install any spill prevention system	(T)	Major	Major	$1500
§280.20(c)(1)(i)	Installation of inadequate spill prevention equipment in a new tank	(T)	Major	Major	$1500
§280.20(c)(1)	Failure to install any overfill prevention system	(T)	Major	Moderate	$750
§280.20(c)(1)(ii)	Installation of inadequate overfill prevention equipment in a new tank	(T)	Major	Moderate	$750
§280.20(d)	Failure to install tank in accordance with accepted codes and standards	(T)	Varies[2/]	Varies[2/]	see matrix
§280.20(d)	Failure to install piping in accordance with accepted codes and standards	(P)	Varies[2/]	Varies[2/]	see matrix
§280.20(e)	Failure to provide any certification of UST installation	(F)	Moderate	Minor	$100
§280.20(e)(1)-(6)	Failure to provide complete certification of UST installation	(F)	Minor	Minor	$50
	280.21 Upgrading of existing UST systems				
§280.21(b)	Failure to meet all tank upgrade standards	(T)	Major	Major	$1500
§280.21(b)(1)(i)	Improper installation of interior lining for tank upgrade requirements	(T)	Major	Major	$1500
§280.21(b)(1)(ii)	Failure to meet interior lining inspection requirements for tank upgrade	(T)	Major	Moderate	$750
§280.21(b)(2)(i)	Failure to ensure that tank is structurally sound before installing cathodic protection	(T)	Major	Moderate	$750
§280.21(b)(2)(ii)	Failure to provide any monthly monitoring of cathodic protection for tank upgrade requirement	(T/F)	Major	Major	$1500
§280.21(b)(2)(ii)	Failure to provide continuous monthly monitoring of cathodic protection for tank upgrade requirement	(T/F)	Moderate	Minor	$100

[2/] Deviation from requirement and potential for harm will vary depending upon specific code or standard violated.

* NOTE: THIS LIST OF SELECTED VIOLATIONS IS NOT INTENDED TO BE EXHAUSTIVE AND, THEREFORE, MAY NOT INCLUDE ...

Regulatory Citation	Violation	Unit Assessment[1/]	Deviation from Requirement	Potential for Harm	Matrix Value
SUBPART B -- UST SYSTEMS: DESIGN, CONSTRUCTION, INSTALLATION, AND NOTIFICATION (Continued)					
§280.21(b)(2)(iii)	Failure to meet tightness test requirements for a tank upgraded with cathodic protection	(T/F)	Major	Moderate	$750
§280.21(b)(2)(iv)	Failure to meet requirements for testing for corrosion holes for a tank upgraded with cathodic protection	(T/F)	Major	Moderate	$750
§280.21(c)	Failure to install any cathodic protection for metal piping upgrade requirements	(P)	Major	Major	$1500
§280.21(c)	Failure to meet tightness test requirements for cathodically protected metal piping	(P)	Major	Moderate	$750
§280.21(d)	Failure to provide spill prevention system for an existing tank	(T)	Major	Major	$1500
§280.21(d)	Failure to provide overfill prevention system for an existing tank	(T)	Major	Moderate	$750
	280.22 Notification requirements				
§280.22(a)	Failure to notify state or local agency within 30 days of bringing an UST system into use	(T)	Major	Major	$1500
§280.22(a)	Failure to notify designated state or local agency of existing tank	(T)	Major	Major	$1500
§280.22(c)	Failure to identify on the submitted notification form all known tanks at that site	(F)	Major	Moderate	$750
§280.22(c)	Failure to submit a separate notification form for all notified tanks that are located at a separate place of operation	(F)	Major	Minor	$200
§280.22(e)-(f)	Failure to provide complete certification of all requirements on the notification form	(F)	Moderate	Minor	$100
§280.22(g)	Failure to inform tank purchaser of notification requirements	(T)	Major	Major	$1500

NOTE: THIS LIST OF SELECTED VIOLATIONS IS NOT INTENDED TO BE EXHAUSTIVE AND, THEREFORE, MAY NOT INCLUDE ALL POSSIBLE VIOLATIONS

Regulatory Citation	Violation	Unit Assessment[1/]	Deviation from Requirement	Potential for Harm	Matrix Value
	SUBPART C -- GENERAL OPERATING REQUIREMENTS				
	280.30 Spill and overfill control				
§280.30(a)	Failure to take necessary precautions to prevent overfill/spillage during the transfer of product	(F)	Major	Major	$1500
§280.30(b)	Failure to report a spill/overfill	(F)	Major	Major	$1500
§280.30(b)	Failure to investigate and clean up a spill/overfill	(F)	Major	Major	$1500
	280.31 Operation and maintenance of corrosion protection				
§280.31(a)	Failure to operate and maintain corrosion protection system continuously	(F/T)	Major	Major	$1500
§280.31(b)(1)	Failure to ensure that cathodic protection system is tested within 6 months of installation	(F/T)	Major	Major	$1500
§280.31(b)(1)	Failure to ensure that cathodic protection system is tested every 3 years thereafter	(T/F)	Major	Moderate	$750
§280.31(b)(1)	Failure to meet one 3-year test for cathodic protection system	(T/F)	Moderate	Minor	$100
§280.31(b)(2)	Failure to inspect cathodic protection system in accordance with accepted codes	(T/F)	Major	Moderate	$750
§280.31(c)	Failure to inspect impressed current systems every 60 days	(T/F)	Major	Moderate	$750
§280.31(d)	Failure to maintain any records of cathodic protection inspections	(T/F)	Major	Moderate	$750
§280.31(d)	Failure to maintain every record of cathodic protection inspections	(T/F)	Moderate	Minor	$100
	280.32 Compatibility				
§280.32	Failure to ensure that UST system is made of or lined with materials compatible with substance stored	(T/P)	Major	Major	$1500

* NOTE: THIS LIST OF SELECTED VIOLATIONS IS NOT INTENDED TO BE EXHAUSTIVE AND, THEREFORE, MAY NOT INCLUDE ALL POSSIBLE [illegible]

Regulatory Citation	Violation	Unit Assessment[1/]	Deviation from Requirement	Potential for Harm	Matrix Value
	SUBPART C -- GENERAL OPERATING REQUIREMENTS (Continued)				
	280.33 Repairs allowed				
§280.33(a)	Failure to repair UST system in accordance with accepted codes and standards	(T)	Varies[2/]	Varies[2/]	see matrix
§280.33(b)	Failure to repair fiberglass-reinforced UST in accordance with accepted codes and standards	(T)	Varies[2/]	Varies[2/]	see matrix
§280.33(c)	Failure to replace metal piping that has released product	(P)	Major	Major	$1500
§280.33(c)	Failure to repair fiberglass-reinforced piping in accordance with manufacturers specifications	(P)	Major	Major	$1500
§280.33(d)	Failure to ensure that repaired tank systems are tightness tested within 30 days of completion of repair	(T)	Major	Moderate	$750
§280.33(e)	Failure to test cathodic protection system within 6 months of repair of an UST system	(T)	Major	Moderate	$750
§280.33(f)	Failure to maintain records of each repair to an UST system	(T)	Major	Major	$1500
	280.34 Reporting and recordkeeping				
(For violations of reporting and recordkeeping, see appropriate regulatory section (e.g., reporting of releases will be under Subpart D).					
	SUBPART D -- RELEASE DETECTION				
	280.40 General requirements for all UST systems				
§280.40(a)(1)	Failure to provide release detection method capable of detecting a release from tank or piping that routinely contains product	(T/F)	Major	Major	$1500
§280.40(a)(2)	Failure to install, calibrate, operate, or maintain release detection method in accordance with manufacturer's instructions	(T/F)	Major	Major	$1500

NOTE: THIS LIST OF SELECTED VIOLATIONS IS NOT INTENDED TO BE E[illegible]TIVE AND, THEREFORE, MAY NOT INCLUDE [illegible]

Regulatory Citation	Violation	Unit Assessment[1/]	Deviation from Requirement	Potential for Harm	Matrix Value
	SUBPART D -- RELEASE DETECTION (Continued)				
§280.40(a)(3)	Failure to provide a release detection method that meets the performance requirements in §280.43 or §280.44	(F)	Major	Major	$1500
§280.40(b)	Failure to notify implementing agency when release detection indicates release	(F)	Major	Major	$1500
§280.40(c)	Failure to provide any release detection method by phase-in date	(F)	Major	Major	$1500
§280.40(d)	Failure to close any UST system that cannot meet release detection requirements.	(F)	Major	Major	$1500
	280.41 Requirements for petroleum UST systems				
§280.41(a)	Failure to monitor tanks at least every 30 days, if appropriate	(T)	Major	Major	$1500
§280.41(a)(1)	Failure to conduct tank tightness testing every 5 years, if appropriate	(T)	Major	Major	$1500
§280.41(a)(2)	Failure to conduct annual tank tightness testing, if appropriate	(T)	Major	Major	$1500
§280.41(b)	Failure to use any underground piping monitoring method	(P)	Major	Major	$1500
	280.42 Requirements for hazardous substance UST systems				
§280.42(a)	Failure to provide release detection for an existing hazardous substance tank system	(F)	Major	Major	$1500
§280.42(b)	Failure to provide adequate release detection for a new hazardous substance UST system	(F)	Major	Major	$1500
§280.42(b)(1)	Failure to provide adequate secondary containment of tank for a hazardous substance UST	(T)	Major	Major	$1500
§280.42(b)(2)	Failure to provide adequate double-walled tank/adequate lining for a hazardous substance UST	(T)	Major	Major	$1500

* NOTE: THIS LIST OF SELECTED VIOLATIONS IS NOT INTENDED TO BE EXHAUSTIVE AND, THEREFORE, MAY NOT INCLUDE ALL POSSIBLE VIOL

Regulatory Citation	Violation	Unit Assessment[1/]	Deviation from Requirement	Potential for Harm	Matrix Value
	SUBPART D -- RELEASE DETECTION (Continued)				
§280.42(b)(3)	Failure to provide adequate external liners for a hazardous substance UST	(T)	Major	Major	$1500
§280.42(b)(4)	Failure to provide adequate secondary containment of piping for a hazardous substance UST	(T)	Major	Major	$1500
	280.44 Methods of release detection for piping				
§280.44	Failure to provide any release detection for underground piping	(P)	Major	Major	$1500
§280.44(a)	Failure to provide adequate line leak detector system for underground piping	(P)	Major	Major	$1500
§280.44(b)	Failure to provide adequate line tightness testing system for underground piping system	(P)	Major	Major	$1500
§280.44(c)	Inadequate use of applicable tank release detection methods	(P)	Major	Major	$1500
	280.45 Release detection recordkeeping				
§280.45	Failure to maintain any records of release detection monitoring	(F)	Major	Major	$1500
§280.45	Failure to maintain every record of release detection monitoring	(F)	Moderate	Minor	$100
§280.45(a)	Failure to document all release detection performance claims for 5 years after installation	(F)	Moderate	Minor	$100
§280.45(b)	Failure to maintain any results of sampling, testing or monitoring for release detection for at least 1 year	(F)	Major	Major	$1500
§280.45(b)	Failure to maintain every result of sampling, testing or monitoring for release detection for at least 1 year	(F)	Moderate	Minor	$100
§280.45(b)	Failure to retain results of tightness testing until next test is conducted	(F)	Major	Major	$1500
§280.45(c)	Failure to document any calibration, maintenance, and repair of release detection	(F)	Major	Major	$1500

Regulatory Citation	Violation	Unit Assessment[1/]	Deviation from Requirement	Potential for Harm	Matrix Value
SUBPART D -- RELEASE DETECTION (Continued)					
§280.45(c)	Failure to document every calibration, maintenance, and repair of release detection	(F)	Moderate	Moderate	$500
SUBPART E -- RELEASE REPORTING, INVESTIGATION, AND CONFIRMATION					
	280.50 Reporting of suspected release				
§280.50(a)-(c)	Failure to report a suspected release within 24 hours to the implementing agency	(F)	Major	Major	$1500
	280.52 Release investigation and confirmation steps				
§280.52(a)-(b)	Failure to investigate and confirm a release (if appropriate) using accepted procedures	(F)	Major	Major	$1500
	280.53 Reporting and cleanup of spills and overfills				
§280.53(a)	Failure to report a spill/overfill (if appropriate) to implementing agency within 24 hours (or other specified time period)	(F)	Major	Major	$1500
§280.53(b)	Failure to contain and immediately clean up a spill/overfill of less than 25 gallons	(F)	Major	Major	$1500
§280.53(b)	Failure to contain and immediately clean up a hazardous substance spill/overfill	(F)	Major	Major	$1500
SUBPART F -- RELEASE RESPONSE AND CORRECTIVE ACTION					
§280.61	Failure to take initial response actions within specified time period after a release is confirmed	(F)	Major	Major	$1500

* NOTE: THIS LIST OF SELECTED VIOLATIONS IS NOT INTENDED TO BE EXHAUSTIVE AND, THEREFORE, MAY NOT INCLUDE ALL POSSIBLE

Regulatory Citation	Violation	Unit Assessment[1/]	Deviation from Requirement	Potential for Harm	Matrix Value
SUBPART F -- RELEASE RESPONSE AND CORRECTIVE ACTION (Continued)					
§280.62	Failure to submit report on initial abatement measures within 20 days (or other specified time) of release confirmation	(F)	Major	Major	$1500
§280.63	Failure to submit report on initial site characterization within 45 days (or other specified time) of release confirmation	(F)	Major	Major	$1500
§280.64	Failure to submit report on free report removal within 45 days (or other specified time) of release confirmation	(F)	Major	Major	$1500
SUBPART G -- OUT-OF-SERVICE UST SYSTEMS AND CLOSURE					
	280.70 Temporary closure				
§280.70(a)	Failure to continue operation and maintenance of cathodic protection system in a temporarily closed tank system	(F/T)	Major	Moderate	$750
§280.70(a)	Failure to continue operation and maintenance of release detection in a temporarily closed tank system	(F/T)	Major	Major	$1500
§280.70(b)	Failure to comply with temporary closure requirements for a tank system for 3 or more months	(F/T)	Major	Moderate	$750
§280.70(c)	Failure to permanently close or upgrade a temporarily closed tank system after 12 months	(F/T)	Major	Major	$1500
	280.71 Permanent closure and changes-in-service				
§280.71(a)	Failure to notify implementing agency of a closure or change-in-service	(F/T)	Major	Major	$1500
§280.71(b)	Failure to remove all liquids and sludges for tank closure	(F/T)	Major	Major	$1500
§280.71(b)	Failure to remove closed tank from the ground or fill tank with an inert solid for tank closure	(F/T)	Major	Moderate	$750
§280.71(c)	Failure to empty and clean tank system and conduct a site assessment prior to a change-in-service	(F/T)	Major	Major	$1500

)TE: THIS LIST OF SELECTED VIOLATIONS IS NOT INTENDED TO BE E

Regulatory Citation	Violation	Unit Assessment[1/]	Deviation from Requirement	Potential for Harm	Matrix Value
	SUBPART G -- OUT-OF-SERVICE UST SYSTEMS AND CLOSURE (Continued)				
	280.72 Assessing the site at closure or change-in-service				
§280.72(a)	Failure to measure (if required) for the presence of a release before a permanent closure	(T/F)	Major	Major	$1500
§280.72(b)	If contaminated soil, contaminated ground water, or free product is discovered, failure to begin corrective action	(T/F)	Major	Major	$1500
	280.74 Closure records				
§280.74	Failure to maintain closure records for at least 3 years	(F)	Major	Major	$1500
§280.74	Failure to maintain change-in-service records for at least 3 years	(F)	Major	Major	$1500
	SUBPART H -- FINANCIAL RESPONSIBILITY				
§280.93(a)	Failure to comply with financial responsibility requirements by the required phase-in time	(F)	Major	Moderate	$750
§280.93(a)(1)-(2)	Failure to meet the requirement for per-occurrence coverage of insurance.	(F)	Major	Moderate	$750
§280.93(b)(1)-(2)	Failure to meet the raquirement for annual aggregate coverage of insurance.	(F)	Major	Moderate	$750
§280.93(f)	Failure to review and adjust financial assurance after acquiring new or additional USTs	(F)	Major	Moderate	$750
§280.94	Use of an unapproved mechanism or combination of mechanisms to demonstrate financial responsibility	(F)	Major	Moderate	$750
§280.95	Use of falsified financial documents to pass financial test of self-insurance	(F)	Major	Moderate	$750
§280.106(a)(1)	Failure to report evidence of financial responsibility to the implementing agency within 30 days of detecting a known or suspected release	(F)	Moderate	Minor	$100

* NOTE: THIS LIST OF SELECTED VIOLATIONS IS NOT INTENDED TO BE EXHAUSTIVE AND, THEREFORE, MAY NOT INCLUDE ...

Regulatory Citation	Violation	Unit Assessment[1/]	Deviation from Requirement	Potential for Harm	Matrix Value
SUBPART H -- FINANCIAL RESPONSIBILITY (Continued)					
§280.106(a)(2)	Failure to report evidence of financial responsibility to the implementing agency when new tanks are installed	(F)	Moderate	Minor	$100
§280.106(b)	Failure to report evidence of financial responsibility to the implementing agency if the provider becomes incapable of providing financial assurance and the owner or operator is unable to obtain alternate coverage within 30 days.	(F)	Moderate	Minor	$100
§280.107	Failure to maintain copies of the financial assurance mechanism(s) used to comply with financial responsibility rule and certification that the mechanism is in compliance with the requirements of the rule at the UST site or place of business	(F)	Moderate	Minor	$100

NOTE: THIS LIST OF SELECTED VIOLATIONS IS NOT INTENDED TO BE ... STIVE AND, THEREFORE, MAY NOT INCLUDE ...

APPENDIX B:

UST PENALTY COMPUTATION WORKSHEET

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UST PENALTY COMPUTATION WORKSHEET

Assessments for each violation should be determined on separate worksheets and totaled. (If more space is needed, attach separate sheet.)

PART 1 - BACKGROUND

Company name_____

Regulation violated_____

_____

_____

Previous violations_____

_____

Date of requirement_____ Date of inspection_____

Date of compliance_____ Explanation (if appropriate):

1. Days of noncompliance_____

2. Number of tanks_____

PART 2 - ECONOMIC BENEFIT COMPONENT

Avoided Expenditures_____ Basis:_____

Delayed Expenditures_____ Basis: _____

Weighted Tax Rate_____ Source: _____

Interest Rate_____ Source: _____

$$\text{AVOIDED COSTS} = \left[\text{Avoided Expenditures} + \text{Avoided Expenditures} \times \text{Interest} \times \frac{\text{Number of Days}}{365 \text{ Days}}\right] \times (1 - \text{Weighted Tax Rate})$$

3. Calculated Avoided Cost:_____

UST PENALTY COMPUTATION WORKSHEET

DELAYED COSTS = $\frac{\text{Delayed Expenditures x Interest x Number of Days}}{\text{365 Days}}$

4. Calculated Delayed Cost:_____

5. Economic Benefit Component:_____(carry figure to Line 16).
(Line 3 + Line 4)

PART 3 - MATRIX VALUE FOR THE GRAVITY-BASED COMPONENT

Potential for Harm:_____ Extent of Deviation_____

6. Matrix Value (MV):_____ (from document page 16 or Appendix A)

7. Per-tank MV:_____ (if violation is per facility, the amount on Line 7 will be the same as the amount on Line 6)
(Line 2 x Line 6)

PART 4 - VIOLATOR-SPECIFIC ADJUSTMENTS TO MATRIX VALUE

	Percentage Change (+ or -)	x Matrix Value	= Dollar Adjustment (+ or -)	Justification for Adjustment:
8. Degree of cooperation/ noncooperation	_____	_____	_____	
9. Degree of willfulness or negligence:	_____	_____	_____	
10. History of noncompliance:	_____	_____	_____	
11. Unique factors:	_____	_____	_____	
12. Adjusted Matrix Value (Line 7 + Lines 8-11)			_____	

UST PENALTY COMPUTATION WORKSHEET

PART 5 - GRAVITY-BASED COMPONENT

Level of
Environmental Sensitivity_____ Justification:

13. ESM (from document Page 21)_____

14. DNM (from document Page 21)_____

GRAVITY-BASED COMPONENT = Adjusted Matrix Value x Environmental Sensitivity Multiplier x Days of Noncompliance Multiplier

15. Gravity-Based Component: _____
(Line 12 x Line 13 x Line 14)

PART 6 - INITIAL PENALTY TARGET FIGURE

16. Economic Benefit Component _____
(from Line 5)

17. Gravity-Based Component_____
(from Line 15)

18. Initial Penalty Target Figure_____
(Line 16 + Line 17)

SIGNATURE_____ DATE_____

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APPENDIX C:

UST PENALTY COMPUTATION EXAMPLES

UST PENALTY COMPUTATION WORKSHEET

DELAYED COSTS = Delayed Expenditures x Interest x Number of Days / 365 Days

$$DC = \frac{\$2080 \times .181 \times 120}{365} = \$124$$

4. Calculated Delayed Cost: $124

5. Economic Benefit Component: $394 (carry figure to Line 16).
(Line 3 + Line 4)

PART 3 - MATRIX VALUE FOR THE GRAVITY-BASED COMPONENT

Potential for Harm: Major Extent of Deviation Major

6. Matrix Value (MV): $1500 (from document page 16 or Appendix A)

7. Per-tank MV: $6000 (If violation is per facility, the amount on Line 7 will be the same as the amount on Line 6)
(Line 2 x Line 6)

PART 4 - VIOLATOR-SPECIFIC ADJUSTMENTS TO MATRIX VALUE

	Percentage Change (+ or -)	x Matrix Value	= Dollar Adjustment (+ or -)	Justification for Adjustment:
8. Degree of cooperation/ noncooperation	0	$6000	0	Complied as required following inspection.
9. Degree of willfulness or negligence:	0	$6000	0	Did not knowingly violate requirements.
10. History of noncompliance:	+5%	$6000	+$300	Warning letter issued for previous violation.
11. Unique factors:	0	$6000	0	
12. Adjusted Matrix Value (Line 7 + Lines 8-11)			$6300	

UST PENALTY COMPUTATION WORKSHEET

PART 5 - GRAVITY-BASED COMPONENT

Level of Environmental Sensitivity Moderate

Justification: Any release is not likely to have impact on nearby drinking-water sources. Potential impact on the environment would be minimal, although fractured shale would complicate remediation.

13. ESM (from document Page 21) 1.5

14. DNM (from document Page 21) 1.5

GRAVITY-BASED COMPONENT = Adjusted Matrix Value x Environmental Sensitivity Multiplier x Days of Noncompliance Multiplier

GBC = $6300 x 1.5 x 1.5 = $14,175

15. Gravity-Based Component: $14,175
(Line 12 x Line 13 x Line 14)

PART 6 - INITIAL PENALTY TARGET FIGURE

16. Economic Benefit Component $394
(from Line 5)

17. Gravity-Based Component $14,175
(from Line 15)

18. Initial Penalty Target Figure $14,569
(Line 16 + Line 17)

SIGNATURE _____ DATE _____

EXAMPLE 2

BACKGROUND

Inspection Date: March 20, 1992

Facility Name and Description: Johnson's Petromart, located at Prairie View Lane, is one of eight facilities in a convenience store chain that spans three counties. This facility has a total of 5 USTs, and there are a total of 34 USTs at the 8 facilities. Based on an examination of the parent company's tax returns, it was determined that the company's taxable income was $280,000.

Violations: During the inspection, the inspector observed that the facility had no records of financial assurance coverage as required by the April 26, 1991 deadline. Subsequently, the inspector requested records for each of the 8 Johnson facilities. Upon further investigation, the inspector determined that the owner of the chain, Jack Johnson, had acquired private insurance (the owner did not qualify to self-insure) for the other 7 facilities. At the remaining facility, however, neither the owner nor the operator had obtained the required coverage, thereby constituting a violation of 40 CFR section 280.93(a). This facility is among the oldest in the Johnson's chain and is operated with 4 bare steel UST systems and one cathodically protected UST system. The other 7 facilities were opened subsequent to the interim prohibition and installed USTs that meet the Federal design, construction, and installation requirements. Therefore, obtaining insurance for these USTs was easier than for the facility in violation. The insurance company had indicated that it would be willing to ensure the remaining facility provided that the tanks were retrofitted with spill/overfill protection and cathodic protection.

Owner/Operator Response: Jack Johnson argued that it was the responsibility of the operator to upgrade his USTs so as to make them insurable. The operator of the facility claimed that he lacked the resources to upgrade his USTs and believed that the responsibility for meeting the FR requirements was the owner's. The enforcement staff determined that the owner was aware of his responsibility to insure the USTs at all of his facilities and that only he had the means to do so. The Agency attempted to enter into compliance negotiations with Jack Johnson, but to no avail. The Agency planned to issue an administrative complaint on July 1, 1992.

Previous Actions at Facility: Previously, one of the Johnson's facilities had been issued a warning letter for failure to notify the Agency after bringing a new UST into operation. The owner had complied after receiving the letter. Three other facilities had been issued warning letters for failure to maintain all of the required monitoring records for release detection.

Current Status at Site: At the time of the most recent inspection, it was determined that the facility in violation of the FR requirements had an adequate method of release detection, and no releases were determined to have occurred. The geology in the area of the facility is clay. The facility is located in a semi-residential/commercial area; however, there are no drinking water wells or sensitive wildlife receptors within a 3-mile radius of the site.

PENALTY CALCULATION DATA

Violation: 40 CFR section 280.93(a)

Days of violation: 430 days from date of noncompliance (April 26, 1991) to date of compliance (which, for purposes of assessing the penalty, was determined to be July 1, 1992, to coincide with the date of the administrative complaint).

Avoided expenditures: $27.40 per day = $11,781 for 430 days (estimated insurance premium, based on an annual premium of $2,000 per UST for 5 USTs)

Delayed expenditures: $15,000 x 4 = $60,000 (where the average cost for system retrofit is $15,000). This is considered a delayed cost because retrofitting would enable Johnson's to achieve compliance with the financial responsibility requirement.

Interest rate: 18.1% (the equity discount rate used in the BEN model for 1990).

Tax rate: 33% (the weighted average rate for a facility with $280,000 in taxable income).

[NOTE: The numbers used to determine avoided and delayed expenditures were chosen for convenience only. They do not necessarily represent true costs in any State or Region in the country.]

UST PENALTY COMPUTATION WORKSHEET

Assessments for each violation should be determined on separate worksheets and totaled. (If more space is needed, attach separate sheet.)

PART 1 - BACKGROUND

Company name Johnson's Petro mart

Regulation violated 40 CFR section 280.93(a) - Failure to provide full financial coverage by compliance deadline.

Previous violations Notification violation (1989) - warning letter issued; release detection violation (1991) - warning letter issued.

Date of requirement 4/26/91

Date of inspection 3/20/92

Date of compliance 7/1/92

Explanation (if appropriate): date of compliance is considered to be date complaint is issued.

1. Days of noncompliance 430
2. Number of tanks 5 (or 4)*

*(only 4 need to be retrofit)

PART 2 - ECONOMIC BENEFIT COMPONENT

Avoided Expenditures $11,781 Basis: $27.40 per day insurance (5 tanks)

Delayed Expenditures $60,000 Basis: $15,000 per UST retrofit (4 tanks)

Weighted Tax Rate 0.33 (33%) Source: MTR for $280,000 income

Interest Rate 0.181 (18.1%) Source: BEN model (equity discount rate)

$$\text{AVOIDED COSTS} = \left[\text{Avoided Expenditures} + \frac{\text{Avoided Expenditures} \times \text{Interest} \times \text{Number of Days}}{365 \text{ Days}}\right] \times (1 - \text{Weighted Tax Rate})$$

$$AC = \left[\$11,781 + \frac{\$11,981 \times .181 \times 430}{365}\right] \times (1 - .33) = \$9571$$

3. Calculated Avoided Cost: $9576

UST PENALTY COMPUTATION WORKSHEET

DELAYED COSTS = Delayed Expenditures x Interest x Number of Days / 365 Days

$$DC = \frac{\$60,000 \times .181 \times 430}{365} = \$12,794$$

4. Calculated Delayed Cost: $12,794

5. Economic Benefit Component: $22,370 (carry figure to Line 16). (Line 3 + Line 4)

PART 3 - MATRIX VALUE FOR THE GRAVITY-BASED COMPONENT

Potential for Harm: Moderate Extent of Deviation Major

6. Matrix Value (MV): $750 (from document page 16 or Appendix A)

7. Per-tank MV: $750 (Line 2 x Line 6) (if violation is per facility, the amount on Line 7 will be the same as the amount on Line 6)

PART 4 - VIOLATOR-SPECIFIC ADJUSTMENTS TO MATRIX VALUE

	Percentage Change (+ or -)	x Matrix Value	= Dollar Adjustment (+ or -)	Justification for Adjustment:
8. Degree of cooperation/ noncooperation	+ 40%	$750	+ $300	Owner unwilling to negotiate terms of compliance.
9. Degree of willfulness or negligence:	+25%	$750	+ $188	Owner was aware of requirement and able to comply.
10. History of noncompliance:	+20%	$750	+ $150	Previous violation
11. Unique factors:	0	$750	0	N/A
12. Adjusted Matrix Value (Line 7 + Lines 8-11)			$1388	

UST PENALTY COMPUTATION WORKSHEET

PART 5 - GRAVITY-BASED COMPONENT

Level of Environmental Sensitivity: Low

Justification: Potential impact of a release on the environment and drinking-water supplies would be minimal. Clay soil would limit migration of product.

13. ESM (from document Page 21): 1

14. DNM (from document Page 21): 3

GRAVITY-BASED COMPONENT = Adjusted Matrix Value x Environmental Sensitivity Multiplier x Days of Noncompliance Multiplier

GBC = $1388 x 1 x 3 = $4,164

15. Gravity-Based Component: $4164
(Line 12 x Line 13 x Line 14)

PART 6 - INITIAL PENALTY TARGET FIGURE

16. Economic Benefit Component: $22,370
(from Line 5)

17. Gravity-Based Component: $4164
(from Line 15)

18. Initial Penalty Target Figure: $26,534
(Line 16 + Line 17)

SIGNATURE _____ DATE _____

EXAMPLE 3

BACKGROUND

Inspection Date: N/A

Facility Name and Description: Kelly's Kwik Stop is a convenience store that recently had its three USTs taken out of operation. Prior to their removal, the USTs were operated by the owner of the convenience store, Karen Kelly, and owned by Darby Distributors, an oil jobber. The taxable income of Darby Distributors was $400,000 in 1989.

Violations: On May 20, 1989, Ms. Kelly reported the presence of petroleum vapors outside of her convenience store. The Agency investigated the site and confirmed the presence of a petroleum release. Ms. Kelly reported that Darby Distributors had removed the 3 USTs located at her place of business on March 17, 1989; she was not aware of the requirement to notify the Agency prior to permanent closure or of the requirement to conduct a site assessment. Ms. Kelly also could not say whether Darby Distributors had fulfilled these requirements. Upon a review of the Agency's records, it was determined that Darby Distributors had failed to notify the Agency of the closure, thereby constituting a violation of 40 CFR section 280.71. The distributor was also unable to produce records demonstrating compliance with the closure site assessment requirements, constituting a violation of 40 CFR section 280.74. The distributor also failed to assess the site for the presence of a release before permanent closure, in violation of 40 CFR section 280.72(a).

Owner/Operator Response: When the Agency contacted Darby Distributors, they indicated that they would initiate corrective action only if they, and not Ms. Kelly, were actually responsible for the release. The Agency informed them that as the owner of the USTs formerly in operation at Kelly's Kwik Stop they as well as Ms. Kelly are responsible for addressing any release from those USTs. The Agency also informed Darby Distributors that administrative orders were being prepared to compel them to clean up the release and pay penalties for violations of the closure requirements (the Agency was dealing separately with Ms. Kelly). At that time, the company requested to enter into negotiations with the Agency in order to establish a corrective action schedule and determine the amount of the penalties to be assessed.

Previous Actions at Facility: There were no previous incidents of violation at the facility.

Current Status at Site: Kelly's Kwik Stop is located in a rural part of the county. There are, however, two private drinking-water wells within a mile of the facility and several others within 4 miles of the facility. The facility is located one-half mile from a river that is used for recreational purposes as well as by various wildlife as a source of water. The geology in the area of the site is silt.

UST PENALTY COMPUTATION WORKSHEET

DELAYED COSTS = Delayed Expenditures x Interest x Number of Days / 365 Days

4. Calculated Delayed Cost: $0

5. Economic Benefit Component: $0 (carry figure to Line 16).
(Line 3 + Line 4)

PART 3 - MATRIX VALUE FOR THE GRAVITY-BASED COMPONENT

Potential for Harm: Major Extent of Deviation Major

6. Matrix Value (MV): $1500 (from document page 16 or Appendix A)

7. Per-tank MV: $1500 (if violation is per facility, the amount on Line 7 will be the same as the amount on Line 6)
(Line 2 x Line 6)

PART 4 - VIOLATOR-SPECIFIC ADJUSTMENTS TO MATRIX VALUE

	Percentage Change (+ or -)	x Matrix Value	= Dollar Adjustment (+ or -)	Justification for Adjustment:
8. Degree of cooperation/ noncooperation	+ 10%	$1500	+ $150	Owner requested negotiations only after being warned of impending administrative orde
9. Degree of willfulness or negligence:	+ 40%	$1500	+ $600	Owner appeared to take advantage of operators ignorance of requirements
10. History of noncompliance:	0	$1500	0	N/A
11. Unique factors:	0	$1500	0	N/A

12. Adjusted Matrix Value (Line 7 + Lines 8-11) $2250

UST PENALTY COMPUTATION WORKSHEET

PART 5 - GRAVITY-BASED COMPONENT

Level of Environmental Sensitivity: High

Justification: Release could impact several drinking-water wells and a river used by humans for recreation and by wildlife as a source of drinking water.

13. ESM (from document Page 21): 2

14. DNM (from document Page 21): 1.5

GRAVITY-BASED COMPONENT = Adjusted Matrix Value x Environmental Sensitivity Multiplier x Days of Noncompliance Multiplier

GBC = $2250 x 2 x 1.5 = $6750

15. Gravity-Based Component: $6750
(Line 12 x Line 13 x Line 14)

PART 6 - INITIAL PENALTY TARGET FIGURE

16. Economic Benefit Component: 0
(from Line 5)

17. Gravity-Based Component: $6750
(from Line 15)

18. Initial Penalty Target Figure: $6750
(Line 16 + Line 17)

SIGNATURE _____ DATE _____

UST PENALTY COMPUTATION WORKSHEET

Assessments for each violation should be determined on separate worksheets and totaled. (If more space is needed, attach separate sheet.)

PART 1 - BACKGROUND

Company name Darby Distributors

Regulation violated 40 CFR section 280.72(a)- Failure to assess site of tank closure.

Previous violations None

Date of requirement 3/17/89. Date of inspection N/A

Date of compliance 5/20/89 Explanation (if appropriate):

1. Days of noncompliance 64
2. Number of tanks 3

PART 2 - ECONOMIC BENEFIT COMPONENT

Avoided Expenditures $25,500 Basis: $8500 per UST site assessment

Delayed Expenditures N/A Basis:

Weighted Tax Rate 0.34 (34%) Source: MTR for income > $335,000

Interest Rate 0.181 (18.1%) Source: BEN model (equity discount rate)

$$\text{AVOIDED COSTS} = \left[\text{Avoided Expenditures} + \frac{\text{Avoided Expenditures} \times \text{Interest} \times \text{Number of Days}}{365 \text{ Days}}\right] \times (1 - \text{Weighted Tax Rate})$$

$$AC = \left[\$25,500 + \frac{\$25,500 \times .181 \times 64}{365}\right] \times (1-.34) = \$17,364$$

3. Calculated Avoided Cost: $17,364

UST PENALTY COMPUTATION WORKSHEET

DELAYED COSTS = Delayed Expenditures x Interest x Number of Days / 365 Days

4. Calculated Delayed Cost: 0

5. Economic Benefit Component: $17,364 (carry figure to Line 16).
(Line 3 + Line 4)

PART 3 - MATRIX VALUE FOR THE GRAVITY-BASED COMPONENT

Potential for Harm: Major Extent of Deviation Major

6. Matrix Value (MV): $15000 (from document page 16 or Appendix A)

7. Per-tank MV: $6000 (if violation is per facility, the amount on Line 7 will be the same as the amount on Line 6)
(Line 2 x Line 6)

PART 4 - VIOLATOR-SPECIFIC ADJUSTMENTS TO MATRIX VALUE

	Percentage Change (+ or -)	x Matrix Value	= Dollar Adjustment (+ or -)	Justification for Adjustment:
8. Degree of cooperation/ noncooperation	+10%	$6000	+$600	Owner requested negotiations only after being warned of impending administrative order
9. Degree of willfulness or negligence:	+40%	$6000	+$2400	Owner appeared to take advantage of operators ignorance of requirements.
10. History of noncompliance:	0	$6000	0	N/A
11. Unique factors:		$6000	0	N/A
12. Adjusted Matrix Value (Line 7 + Lines 8-11)			$9000	

UST PENALTY COMPUTATION WORKSHEET

PART 5 - GRAVITY-BASED COMPONENT

Level of Environmental Sensitivity: High

Justification: Release could impact several drinking-water wells and a river used by humans for recreation and by wildlife as a source of drinking water.

13. ESM (from document Page 21) 2

14. DNM (from document Page 21) 1

GRAVITY-BASED COMPONENT = Adjusted Matrix Value x Environmental Sensitivity Multiplier x Days of Noncompliance Multiplier

GBC = $9000 x 2 x 1 = $18,000

15. Gravity-Based Component: $18,000
(Line 12 x Line 13 x Line 14)

PART 6 - INITIAL PENALTY TARGET FIGURE

16. Economic Benefit Component $17,364
(from Line 5)

17. Gravity-Based Component $18,000
(from Line 15)

18. Initial Penalty Target Figure $35,364
(Line 16 + Line 17)

SIGNATURE _____ DATE _____

UST PENALTY COMPUTATION WORKSHEET

Assessments for each violation should be determined on separate worksheets and totaled. (If more space is needed, attach separate sheet.)

PART 1 - BACKGROUND

Company name Darby Distributors

Regulation violated 40 CFR section 280.74 - Failure to maintain records capable of demonstrating compliance with tank closure requirements.

Previous violations None

Date of requirement 3/17/89 Date of inspection N/A

Date of compliance 5/20/89 Explanation (If appropriate):

1. Days of noncompliance 64
2. Number of tanks 3

PART 2 - ECONOMIC BENEFIT COMPONENT

Avoided Expenditures N/A Basis:

Delayed Expenditures 0 Basis: Cost of record keeping negligible.

Weighted Tax Rate N/A Source:

Interest Rate N/A Source:

$$\text{AVOIDED COSTS} = \left[\text{Avoided Expenditures} + \frac{\text{Avoided Expenditures} \times \text{Interest} \times \text{Number of Days}}{365 \text{ Days}}\right] \times (1 - \text{Weighted Tax Rate})$$

3. Calculated Avoided Cost: $0

UST PENALTY COMPUTATION WORKSHEET

DELAYED COSTS = Delayed Expenditures x Interest x Number of Days / 365 Days

4. Calculated Delayed Cost: $0

5. Economic Benefit Component: $0 (carry figure to Line 16).
(Line 3 + Line 4)

PART 3 - MATRIX VALUE FOR THE GRAVITY-BASED COMPONENT

Potential for Harm: Major Extent of Deviation Major

6. Matrix Value (MV): $1500 (from document page 16 or Appendix A)

7. Per-tank MV: $1500 (if violation is per facility, the amount on Line 7 will be the same as the amount on Line 6)
(Line 2 x Line 6)

PART 4 - VIOLATOR-SPECIFIC ADJUSTMENTS TO MATRIX VALUE

	Percentage Change (+ or -)	x Matrix Value	= Dollar Adjustment (+ or -)	Justification for Adjustment:
8. Degree of cooperation/ noncooperation	+10%	$1500	+$150	Owner requested negotiations only after being warned of impending administrative orders
9. Degree of willfulness or negligence:	+40%	$1500	+$600	Owner appeared to take advantage of operator's ignorance of requirements.
10. History of noncompliance:	0	$1500	0	N/A
11. Unique factors:	0	$1500	0	N/A

12. Adjusted Matrix Value (Line 7 + Lines 8-11) $2250

UST PENALTY COMPUTATION WORKSHEET

PART 5 - GRAVITY-BASED COMPONENT

Level of Environmental Sensitivity: High

Justification: Release could impact several drinking-water wells and a river used by humans for recreation and by wildlife as a source of drinking water.

13. ESM (from document Page 21): 2

14. DNM (from document Page 21): 1

GRAVITY-BASED COMPONENT = Adjusted Matrix Value x Environmental Sensitivity Multiplier x Days of Noncompliance Multiplier

GBC = $2250 × 2 × 1 = $4500

15. Gravity-Based Component: $4500
(Line 12 x Line 13 x Line 14)

PART 6 - INITIAL PENALTY TARGET FIGURE

16. Economic Benefit Component: $0
(from Line 5)

17. Gravity-Based Component: $4500
(from Line 15)

18. Initial Penalty Target Figure: $4500
(Line 16 + Line 17)

Total Initial Penalty Target for Darby Distributors:
= Violation #1 + Violation #2 + Violation #3
= $6750 + $35,364 + $4500 = $46,614

SIGNATURE_____ DATE_____

EXAMPLE 4

BACKGROUND

Inspection Date: December 15, 1991

Facility Name and Description: Jerry's Gas and Grocery is a medium-sized facility in a commercial section of town. The facility has 4 USTs, 3 of which were installed in 1968 and one in 1989. It was estimated that the company's taxable income was $70,000 in 1990.

Violations: On October 16, 1991, the Agency discovered that Jerry's Gas and Grocery had a release. At the time of the release, an adequate method of release detection was not in use at the facility, constituting a violation of 40 CFR section 280.40(c) for the 3 tanks installed in 1968. The Agency sent written notification (after informing the owner of the release by telephone) of the release to the facility and requested, among other things, that the facility report evidence of financial responsibility within 30 days. While conducting a file review on December 15, the compliance staff observed that the facility had failed to report this evidence, in violation of 40 CFR section 280.106(a)(1). A site inspection conducted on this date indicated that an adequate method of release detection was still not in use.

Owner/Operator Response: When notified of these violations, the owner submitted evidence that he had acquired a letter of credit from a bank to meet the FR requirement and began to conduct inventory control and daily monitoring immediately, and arranged for tank tightness tests. The owner, however, had failed to initiate corrective actions (beyond the initial abatement measures) for lack of funds. The owner's failure to report his financial assurance mechanism within the required time period, therefore, delayed the contacting of the bank and the collection of funds with which to initiate corrective action.

Previous Actions at Facility: In 1989, the facility was assessed penalties for failure to notify the Agency of the new UST installation.

Current Status at Site: Because an adequate method of release detection was not in operation, the release went undetected for a matter of months. The geology in the area of the facility is fractured shale. The facility is located in a commercial area. There are no drinking water wells or sensitive wildlife receptors within a 5-mile radius of the site.

PENALTY CALCULATION DATA

Violation: 40 CFR section 280.40(c)

Days of violation: 358 days, from the latest required date of compliance (December 22, 1990) to the actual date of compliance (December 15, 1991).

Avoided expenditures: $2455 total = $895 labor for 358 days, at $2.50 per day (estimated cost for labor needed to conduct daily inventory control based on 1/2 hour labor at $5.00 per hour) + $1560 for tightness testing for 3 tanks (where the average cost for tank tightness testing is $520 per tank).

Delayed expenditures: None.

Interest rate: 18.1% (the equity discount rate used in the BEN model for 1991).

Tax rate: 18% (the weighted average rate for a company with taxable income of $70,000).

PENALTY CALCULATION DATA

Violation: 40 CFR section 280.106(a)(1)

Days of Violation: 30 days from the latest required date of compliance (November 15, 1991) to the actual date of compliance (December 15, 1991).

Avoided expenditures: $8219 = Amount of interest avoided on $1,000,000 letter of credit because of failure to provide the Agency with evidence of financial responsibility (based on 30 days of interest at 10%, the rate charged by Jerry's bank for letter of credit drawdown).

Delayed expenditures: None.

Interest rate: 18.1% (the equity discount rate used in the BEN model for 1990 and 1991).

Tax rate: 18% (the weighted average rate for a company with taxable income of $70,000).

[NOTE: The numbers used to determine avoided and delayed expenditures were chosen for convenience only. They do not necessarily represent true costs in any State or Region in the country.]

UST PENALTY COMPUTATION WORKSHEET

Assessments for each violation should be determined on separate worksheets and totaled. (If more space is needed, attach separate sheet.)

PART 1 - BACKGROUND

Company name Jerry's Gas & Grocery

Regulation violated 40 CFR section 280.40 (a)(1) - Failure to have release detection by compliance date (12/22/90).

Previous violations Notification (1989) - penalties assessed for failure to notify of new UST installation.

Date of requirement 12/22/90 Date of inspection 12/15/91

Date of compliance 12/15/91 Explanation (if appropriate):

1. Days of noncompliance 358
2. Number of tanks 4 (or 3)* *(only 3 tanks require release detection).

PART 2 - ECONOMIC BENEFIT COMPONENT

Avoided Expenditures $2455 Basis: $520 per UST tightness test } $2.50 per day for monitoring } x 3

Delayed Expenditures N/A Basis: N/A

Weighted Tax Rate 0.18 (18%) Source: MTR for income of $70,000

Interest Rate 0.181 (18.1%) Source: BEN model (equity discount rate)

AVOIDED COSTS = [Avoided Expenditures + Avoided Expenditures x Interest x Number of Days / 365 Days] .x (1 - Weighted Tax Rate)

$$AC = \left[\$2455 + \frac{\$2455 \times .181 \times 358}{365}\right] \times (1-.18) = \$2370$$

3. Calculated Avoided Cost: $2370

UST PENALTY COMPUTATION WORKSHEET

DELAYED COSTS = Delayed Expenditures x Interest x Number of Days / 365 Days

4. Calculated Delayed Cost: 0

5. Economic Benefit Component: $2370 (carry figure to Line 16).
(Line 3 + Line 4)

PART 3 - MATRIX VALUE FOR THE GRAVITY-BASED COMPONENT

Potential for Harm: Major Extent of Deviation Major

6. Matrix Value (MV): $1500 (from document page 16 or Appendix A)

7. Per-tank MV: $4500 (If violation is per facility, the amount on Line 7 will be the same as the amount on Line 6)
(Line 2 x Line 6)

PART 4 - VIOLATOR-SPECIFIC ADJUSTMENTS TO MATRIX VALUE

	Percentage Change (+ or -)	x Matrix Value	= Dollar Adjustment (+ or -)	Justification for Adjustment:
8. Degree of cooperation/ noncooperation	0	$4500	0	Complied as required following notification.
9. Degree of willfulness or negligence:	0	$4500	0	N/A
10. History of noncompliance:	+30%	$4500	+$1350	Previous violation involving penalties
11. Unique factors:	0	$4500	0	
12. Adjusted Matrix Value (Line 7 + Lines 8-11)			$5850	

UST PENALTY COMPUTATION WORKSHEET

PART 5 - GRAVITY-BASED COMPONENT

Level of Environmental Sensitivity Moderate

Justification: Release is not likely to have impact on ground or surface water. Potential impact on the environment is minimal, although potential human receptors are present. Fractured shale would complicate remediation.

13. ESM (from document Page 21) 1.5

14. DNM (from document Page 21) 2.5

GRAVITY-BASED COMPONENT = Adjusted Matrix Value x Environmental Sensitivity Multiplier x Days of Noncompliance Multiplier

GBC = $5850 x 1.5 x 2.5 = $21,938

15. Gravity-Based Component: $21,938
(Line 12 x Line 13 x Line 14)

PART 6 - INITIAL PENALTY TARGET FIGURE

16. Economic Benefit Component $2370
(from Line 5)

17. Gravity-Based Component $21,938
(from Line 15)

18. Initial Penalty Target Figure $24,308
(Line 16 + Line 17)

SIGNATURE _____ DATE _____

UST PENALTY COMPUTATION WORKSHEET

Assessments for each violation should be determined on separate worksheets and totaled. (If more space is needed, attach separate sheet.)

PART 1 - BACKGROUND

Company name Jerry's Gas & Grocery

Regulation violated 40 CFR section 280.106(a)(1) - Failure to report evidence of financial assurance within 30 days of discovering a release.

Previous violations Notification (1989) - penalties assessed for failure to notify of new UST installation.

Date of requirement 11/15/91 Date of inspection 12/15/91

Date of compliance 12/15/91 Explanation (if appropriate):

1. Days of noncompliance 30
2. Number of tanks 4

PART 2 - ECONOMIC BENEFIT COMPONENT

Avoided Expenditures $8219 Basis: Avoided interest that would have been paid on $1,000,000 letter of credit for 30

Delayed Expenditures 0 Basis: Negligible

Weighted Tax Rate 0.18 (18%) Source: MTR for income of $70,000

Interest Rate 0.181 (18.1%) Source: BEN model (equity discount rate)

$$\text{AVOIDED COSTS} = \left[\text{Avoided Expenditures} + \text{Avoided Expenditures} \times \text{Interest} \times \frac{\text{Number of Days}}{365 \text{ Days}}\right] \times (1 - \text{Weighted Tax Rate})$$

$$AC = \left[\$8219 + \frac{\$8219 \times .181 \times 30}{365}\right] \times (1 - .18) = \$6840$$

3. Calculated Avoided Cost: $6840

UST PENALTY COMPUTATION WORKSHEET

DELAYED COSTS = Delayed Expenditures x Interest x Number of Days / 365 Days

4. Calculated Delayed Cost: 0

5. Economic Benefit Component: $6840 (carry figure to Line 16).
(Line 3 + Line 4)

PART 3 - MATRIX VALUE FOR THE GRAVITY-BASED COMPONENT

Potential for Harm: Moderate Extent of Deviation Major

6. Matrix Value (MV): $750 (from document page 16 or Appendix A)

7. Per-tank MV: $750 (If violation is per facility, the amount on Line 7 will be the same as the amount on Line 6)
(Line 2 x Line 6)

PART 4 - VIOLATOR-SPECIFIC ADJUSTMENTS TO MATRIX VALUE

	Percentage Change (+ or -)	x Matrix Value	= Dollar Adjustment (+ or -)	Justification for Adjustment:
8. Degree of cooperation/ noncooperation	0	$750	0	Complied as required following notification
9. Degree of willfulness or negligence:	0	$750	0	N/A
10. History of noncompliance:	+30%	$750	+$225	Previous violation involving penalties
11. Unique factors:	0	$750	0	
12. Adjusted Matrix Value (Line 7 + Lines 8-11)			$975	

UST PENALTY COMPUTATION WORKSHEET

PART 5 - GRAVITY-BASED COMPONENT

Level of Environmental Sensitivity: Moderate

Justification: Release is not likely to have impact on ground or surface water. Potential impact on the environment is minimal, although potential human receptors are present. Fractured shale would complicate remediation.

13. ESM (from document Page 21) 1.5

14. DNM (from document Page 21) 1.0

GRAVITY-BASED COMPONENT = Adjusted Matrix Value x Environmental Sensitivity Multiplier x Days of Noncompliance Multiplier

GBC = $975 x 1.5 x 1 = $1462

15. Gravity-Based Component: $1462
(Line 12 x Line 13 x Line 14)

PART 6 - INITIAL PENALTY TARGET FIGURE

16. Economic Benefit Component $6840
(from Line 5)

17. Gravity-Based Component $1462
(from Line 15)

18. Initial Penalty Target Figure $8302
(Line 16 + Line 17)

Total Initial Penalty Target for Jerry's Gas & Grocery
= Violation #1 + Violation #2
= $24,308 + $8302
= $32,610

SIGNATURE _____ DATE _____

EXAMPLE 5

BACKGROUND

Inspection Date: January 8, 1990

Facility Name and Description: The Mammoth Oil facility located at 345 Pine Street has 5 USTs and is owned and operated by Mammoth Oil Company, a national petroleum marketer with taxable income over $335,000.

Violations: Upon inspection of the facility, the Agency discovered that 2 new bare steel USTs were installed on November 15, 1989 without cathodic protection. This omission constituted a violation of 40 CFR section 280.20(a)(2)(ii). The tanks failed to meet the performance standards specified in section 280.20(a)(2)(ii), or any of the codes or standards outlined by the regulations as acceptable for compliance.

Owner/Operator Response: When notified of the violation, the company's attorneys asked to enter into negotiations to determine the schedule and terms of compliance, as well as any penalties that might be assessed. The result of the negotiations was a consent order in which the owner agreed to install properly designed cathodic protection (in accordance with the National Association of Corrosion Engineers Standard RP-02-85) and pay the penalty by March 1, 1990.

Previous Actions at Facility: The facility was issued a notice of violation in 1987 for failure to notify the Agency of a new UST installation. In 1988, the company was issued two administrative orders, one compelling remediation of a release and the other assessing penalties for failure to report the release to the Agency.

Current Status at Site: At the time of the inspection, the facility was conducting a method of release detection in accordance with the requirements. The Agency determined that it was unlikely that there was a release at the present time. The geology in the area of the facility is gravel. The facility is located in an urban residential area. There are no drinking water wells or sensitive wildlife receptors within a 3-mile radius of the area.

PENALTY CALCULATION DATA

Violation: 40 CFR section 280.20(a)(2)(ii)

Days of violation: 105 days, from the required date of compliance (November 15, 1989) to the actual date of compliance (March 1, 1990).

Avoided expenditures: None.

Delayed expenditures: .$3,050 x 2 USTs = $6,100 (where the average cost for installation of a cathodic protection system is $3,050 per UST).

Interest rate: 18.1% (the equity discount rate used in the BEN model for 1990).

Tax rate: 34% (the weighted average rate for a company with taxable income of $335,000).

[NOTE: The numbers used to determine avoided and delayed expenditures were chosen for convenience only. They do not necessarily represent true costs in any State or Region in the country.]

UST PENALTY COMPUTATION WORKSHEET

Assessments for each violation should be determined on separate worksheets and totaled. (If more space is needed, attach separate sheet.)

PART 1 - BACKGROUND

Company name Mammoth Oil Company

Regulation violated 40 CFR section 280.20(a)(2) - Failure to meet performance standards for cathodic protection

Previous violations Release notification (1987) - two administrative orders issued (one to compel cleanup & one to assess penalties)

Date of requirement 11/15/89 Date of inspection 1/8/90

Date of compliance 3/1/90 Explanation (if appropriate):

1. Days of noncompliance 105
2. Number of tanks 2

PART 2 - ECONOMIC BENEFIT COMPONENT

Avoided Expenditures N/A Basis:

Delayed Expenditures $6100 Basis: Cost for cathodic protection

Weighted Tax Rate 0.34 (34%) Source: MTR for income > $335,000

Interest Rate 0.181 (18.1%) Source: BEN model (equity discount rate)

$$\text{AVOIDED COSTS} = \left[\text{Avoided Expenditures} + \frac{\text{Avoided Expenditures} \times \text{Interest} \times \text{Number of Days}}{\text{365 Days}}\right] \times (1 - \text{Weighted Tax Rate})$$

3. Calculated Avoided Cost: 0

UST PENALTY COMPUTATION WORKSHEET

DELAYED COSTS = Delayed Expenditures x Interest x Number of Days / 365 Days

$$DC = \frac{\$6100 \times .181 \times 105}{365} = \$318$$

4. Calculated Delayed Cost: $318

5. Economic Benefit Component: $318 (carry figure to Line 16).
(Line 3 + Line 4)

PART 3 - MATRIX VALUE FOR THE GRAVITY-BASED COMPONENT

Potential for Harm: Moderate Extent of Deviation Moderate

6. Matrix Value (MV): $500 (from document page 16 or Appendix A)

7. Per-tank MV: $1000 (If violation is per facility, the amount on Line 7 will be the same as the amount on Line 6)
(Line 2 x Line 6)

PART 4 - VIOLATOR-SPECIFIC ADJUSTMENTS TO MATRIX VALUE

	Percentage Change (+ or -)	x Matrix Value	= Dollar Adjustment (+ or -)	Justification for Adjustment:
8. Degree of cooperation/ noncooperation	0	$1000	0	Company agreed to enter into negotiations and pay penalty
9. Degree of willfulness or negligence:	+50%	$1000	+$500	As national marketers, company would have been aware of the requirements
10. History of noncompliance:	+50%	$1000	+$500	Previous violation with two administrative orders.
11. Unique factors:	0	$1000	0	N/A

12. Adjusted Matrix Value (Line 7 + Lines 8-11) $2000

UST PENALTY COMPUTATION WORKSHEET

PART 5 - GRAVITY-BASED COMPONENT

Level of Environmental Sensitivity Moderate

Justification: Facility is located in residential area with no nearby drinking-water wells or wildlife receptors. However, gravel would permit migration of released product.

13. ESM (from document Page 21) 1.5

14. DNM (from document Page 21) 1.5

GRAVITY-BASED COMPONENT = Adjusted Matrix Value x Environmental Sensitivity Multiplier x Days of Noncompliance Multiplier

GBC = $2000 x 1.5 x 1.5 = $4500

15. Gravity-Based Component: $4500
(Line 12 x Line 13 x Line 14)

PART 6 - INITIAL PENALTY TARGET FIGURE

16. Economic Benefit Component $ 318
(from Line 5)

17. Gravity-Based Component $4500
(from Line 15)

18. Initial Penalty Target Figure $4818
(Line 16 + Line 17)

SIGNATURE _____ DATE _____