United States Environmental Protection Agency

Office of Solid Waste and Emergency Response

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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 and financial responsibility

[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).

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]

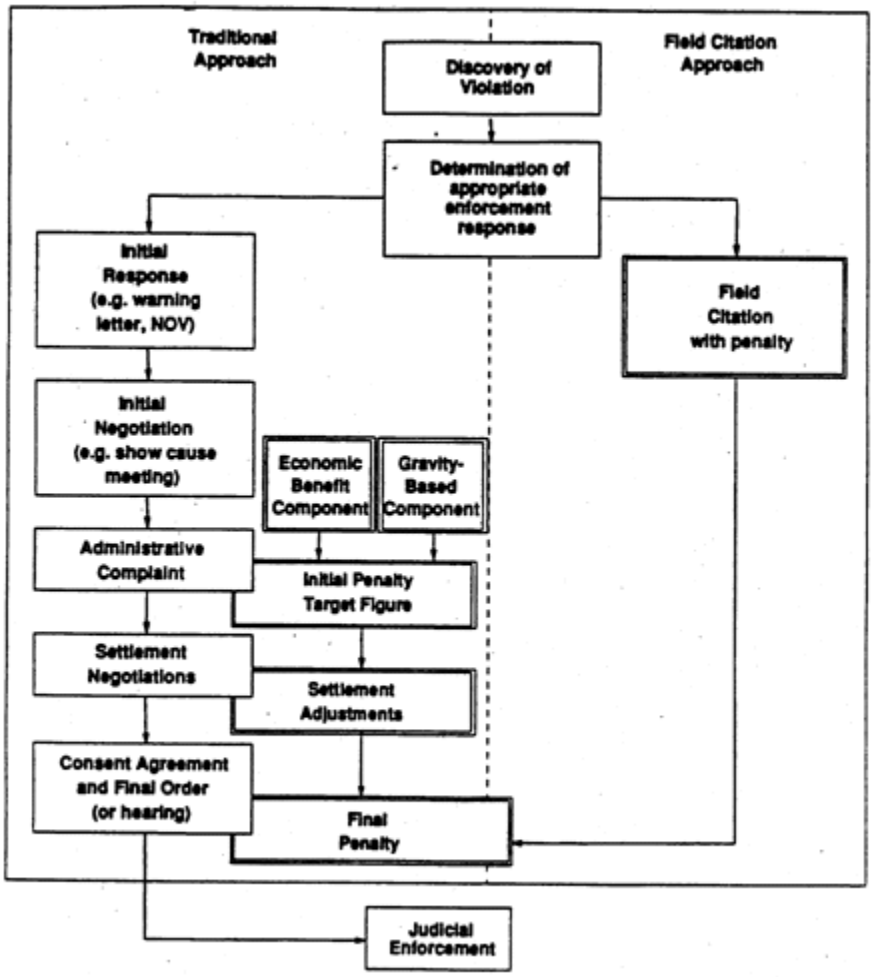
1.2 OVERVIEW OF THE UST ENFORCEMENT PROCESS

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.

[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



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 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]

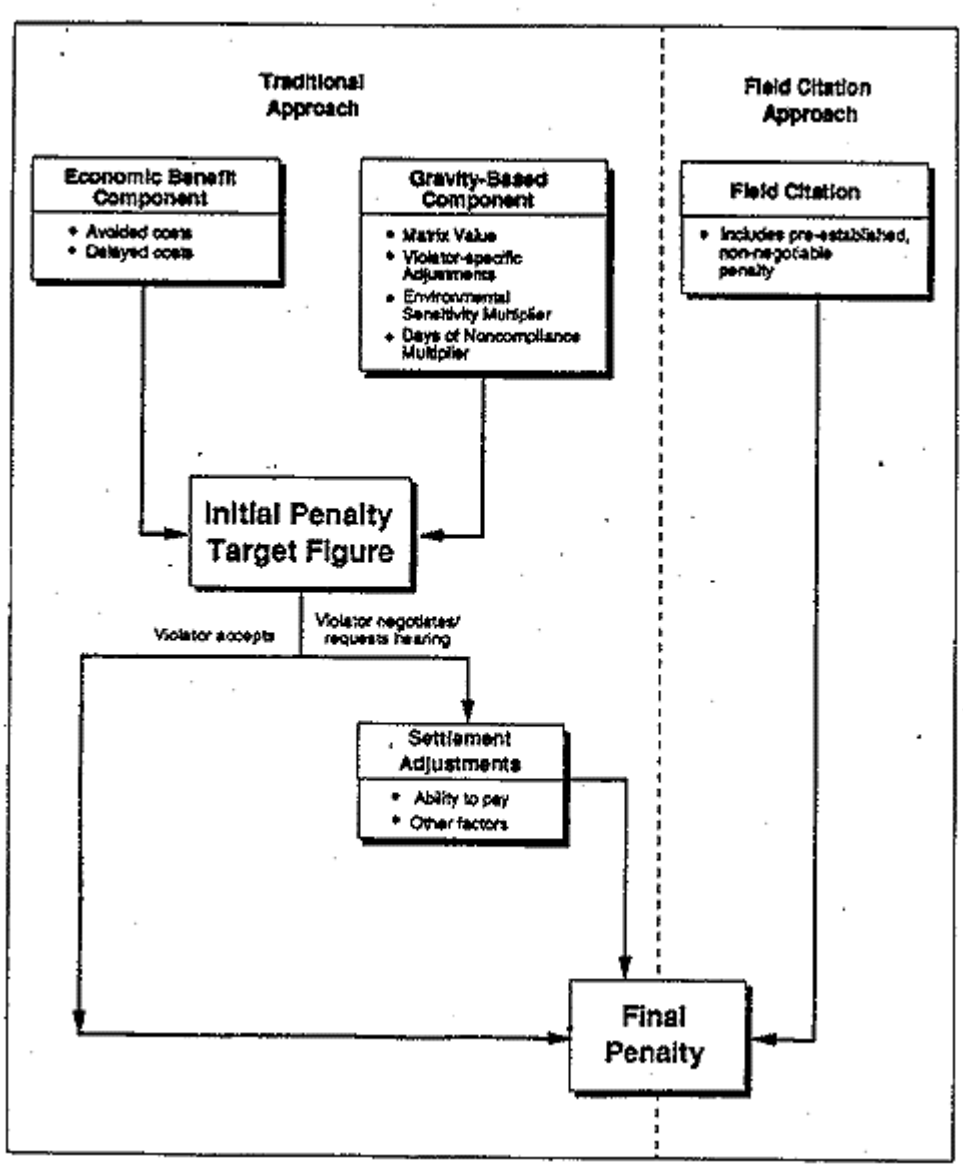
- Encourage timely resolution of environmental problems;
- Support fair and equitable treatment of the regulated community; and
- Deter potential violators from future violations.

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").

[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 procedures for determining the economic benefit component and gravity-based component are discussed in Chapter 2 and Chapter 3. 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.

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

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 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.

[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).

[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.

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

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

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.

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

[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.

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 - small 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).

[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 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.

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

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

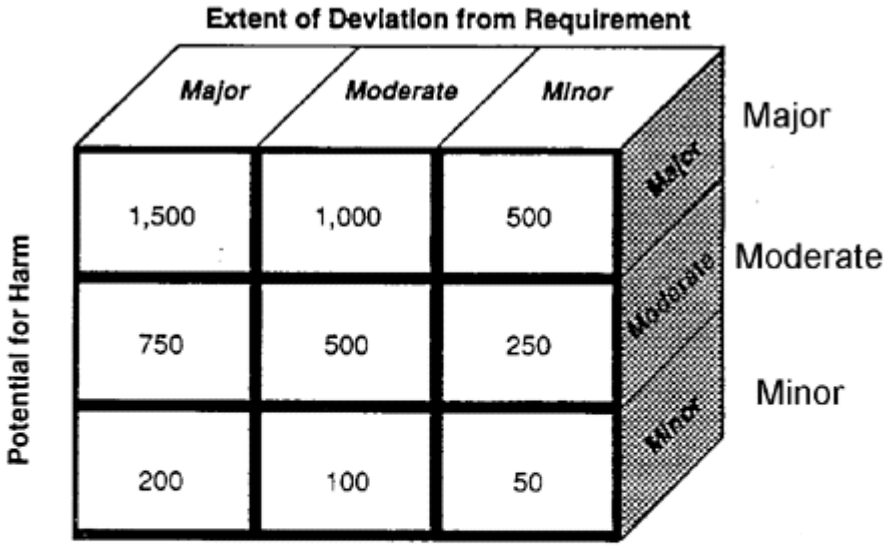
The first step in determining the gravity-based component is determining the initial matrix value. The matrix value is based on the following two criteria:

- **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.

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)

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. 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 Section 3.3 and Section 3.4. 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.

[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.

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]

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.

[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 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 a 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

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

[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

SELECTED VIOLATIONS OF FEDERAL UNDERGROUND STORAGE TANK REGULATIONS

NOTE: This list of selected violations is NOT intended to be exhaustive and, therefore, may not include all possible violations

Subpart B--UST Systems: Design, Construction, Installation, and Notification

§280.20 Performance standards for new UST systems

Regulatory Citation	Violation	Unit Assessment[1]	Deviation from Requirement	Potential for Harm	Matrix Value
§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

Regulatory Citation	Violation	Unit Assessment[1]	Deviation from Requirement	Potential for Harm	Matrix Value
§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

Regulatory Citation	Violation	Unit Assessment[1]	Deviation from Requirement	Potential for Harm	Matrix Value
§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
§280.21(b)(2)(iii)	Failure to meet tightness test requirements for a tank upgraded with cathodic protection	(T/F)	Major	Moderate	$750

Regulatory Citation	Violation	Unit Assessment[1]	Deviation from Requirement	Potential for Harm	Matrix Value
§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

Regulatory Citation	Violation	Unit Assessment[1]	Deviation from Requirement	Potential for Harm	Matrix Value
§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

[1] Unit assessment refers to whether the penalty should be applied per tank (T) or 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.

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

SUBPART C -- GENERAL OPERATING REQUIREMENTS

280.30 Spill and overfill control					
Regulatory Citation	**Violation**	**Unit Assessment[1]**	**Deviation from Requirement**	**Potential for Harm**	**Matrix Value**
§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					
Regulatory Citation	**Violation**	**Unit Assessment[1]**	**Deviation from Requirement**	**Potential for Harm**	**Matrix Value**
§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
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

Regulatory Citation	Violation	Unit Assessment[1]	Deviation from Requirement	Potential for Harm	Matrix Value
§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).					

[1] Unit assessment refers to whether the penalty should be applied per tank (T) or 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.

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

SUBPART D -- RELEASE DETECTION

280.40 General requirements for all UST systems					
Regulatory Citation	**Violation**	**Unit Assessment[1]**	**Deviation from Requirement**	**Potential for Harm**	**Matrix Value**
§280.40(a)(1)	Failure to provide adequate 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
§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
§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
§260.44(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
§280.45(c)	Failure to document every calibration, maintenance, and repair of release detection	(F)	Moderate	Moderate	$500

[1] Unit assessment refers to whether the penalty should be applied per tank (T) or 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.

SUBPART E -- RELEASE REPORTING, INVESTIGATION, AND CONFIRMATION

280.50 Reporting of suspected release					
Regulatory Citation	**Violation**	**Unit Assessment[1]**	**Deviation from Requirement**	**Potential for Harm**	**Matrix Value**
§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					
Regulatory Citation	**Violation**	**Unit Assess-ment[1]**	**Deviation from Requirement**	**Potential for Harm**	**Matrix Value**
§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					
Regulatory Citation	**Violation**	**Unit Assess-ment[1]**	**Deviation from Requirement**	**Potential for Harm**	**Matrix Value**
§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

[1] Unit assessment refers to whether the penalty should be applied per tank (T) or 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.

SUBPART F -- RELEASE RESPONSE AND CORRECTIVE ACTION

280.61 Initial Response					
Regulatory Citation	**Violation**	**Unit Assessment[1]**	**Deviation from Requirement**	**Potential for Harm**	**Matrix Value**
§280.61	Failure to take initial response actions within specified time period after a release is confirmed	(F)	Major	Major	$1500
280.62 Initial Abatement Measures and Site Check					
Regulatory Citation	**Violation**	**Unit Assessment[1]**	**Deviation from Requirement**	**Potential for Harm**	**Matrix Value**
§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 Initial Site Characterization					
Regulatory Citation	**Violation**	**Unit Assessment[1]**	**Deviation from Requirement**	**Potential for Harm**	**Matrix Value**
§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 Free Product Removal					
Regulatory Citation	**Violation**	**Unit Assessment[1]**	**Deviation from Requirement**	**Potential for Harm**	**Matrix Value**
§280.64	Failure to submit report on free report removal within 45 days (or other specified time) of release confirmation	(F)	Major	Major	$1500

[1] Unit assessment refers to whether the penalty should be applied per tank (T) or 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.

SUBPART G OUT-OF-SERVICE UST SYSTEMS AND CLOSURE

280.72 Assessing the site at closure or change-in-service					
Regulatory Citation	**Violation**	**Unit Assess-ment[1]**	**Deviation from Requirement**	**Potential for Harm**	**Matrix Value**
§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

[1] Unit assessment refers to whether the penalty should be applied per tank (T) or 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.

SUBPART H -- FINANCIAL RESPONSIBILITY

280.93 Amount and Scope of Required Financial Responsibility					
Regulatory Citation	**Violation**	**Unit Assess-ment[1]**	**Deviation from Requirement**	**Potential for Harm**	**Matrix Value**
§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 requirement 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 Allowable Mechanisms and Combination of Mechanisms					
Regulatory Citation	**Violation**	**Unit Assess-ment[1]**	**Deviation from Requirement**	**Potential for Harm**	**Matrix Value**
§280.94	Use of an unapproved mechanism or combination of mechanisms to demonstrate financial responsibility	(F)	Major	Moderate	$750
280.95 Financial Test of Self-Insurance					
Regulatory Citation	**Violation**	**Unit Assess-ment[1]**	**Deviation from Requirement**	**Potential for Harm**	**Matrix Value**

§280.95	Use of falsified financial documents to pass financial test of self-insurance	(F)	Major	Moderate	$750

280.106 Reporting By Owner or Operator

Regulatory Citation	Violation	Unit Assess-ment[1]	Deviation from Requirement	Potential for Harm	Matrix Value
§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
§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 Recordkeeping

Regulatory Citation	Violation	Unit Assess-ment[1]	Deviation from Requirement	Potential for Harm	Matrix Value
§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

[1] Unit assessment refers to whether the penalty should be applied per tank (T) or 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.

APPENDIX B: UST Penalty Computation Worksheet

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:_____

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

3. Calculated Avoided Costs:_____

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

4. Calculated Delayed Costs:_____

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 is 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	_____		_____		_____	
9. Degree of willfulness or negligence	_____		_____		_____	
10. History of noncompliance:	_____		_____		_____	
11. Unique factors:	_____		_____		_____	
12.Adjusted Matrix Value (Line 7 + Lines 8-11)					_____	

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	=	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 Target Penalty Figure:_____
(Line 16 + Line 17)

SIGNATURE_____ DATE_____

APPENDIX C:

UST PENALTY COMPUTATION EXAMPLES

EXAMPLE 1

BACKGROUND

Inspection Date: April 12, 1990

Facility Name and Description: Ed's Gas and Go is a small gas station in a semi-rural part of the county. The facility has 4 tanks, apparently installed prior to 1965. Judging from the condition of the facility and adjacent store, Ed's income appears to be less than $50,000 per year.

Violations: During the inspection, the inspector observed that Ed failed to provide a method of release detection by the December 22, 1989 deadline, in violation of 40 CFR section 280.40(c).

Owner/Operator Response: Ed claimed no knowledge of the requirements for release detection. After being informed of methods for meeting the requirement, he indicated that he would use annual tank tightness testing and monthly inventory control, in accordance with 40 CFR section 280.41(a)(2). Ed began to conduct adequate monthly inventory control and arranged to have his tanks tested within 10 days.

Previous Actions at Facility: Previously, Ed had been given a warning letter for failure to comply with the notification requirements, but had complied upon receipt of the letter. No other previous violations were identified.

Current Status at Site: The inspector observed that given the age of the tanks, and Ed's previous inability to detect any releases, there was a good chance for a release to occur and go unnoticed for a significant length of time. However, Ed's subsequent tightness tests indicated that the tanks were tight. The geology in the area is fractured shale. 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: 120 days from date of noncompliance (December 22, 1989) to date of compliance (April 22, 1990, which was 10 days after the inspection).

Avoided expenditures: $2.50 per day = $300 for 120 days (estimated cost for labor needed to conduct daily inventory control, based on 1/2 hour labor at $5.00 per hour)

Delayed expenditures: $520 x 4 tanks = $2,080, where the average cost for a tank tightness test is $520. This is considered a delayed expenditure because it was necessary to achieve compliance in this time frame.

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

Tax rate: 15% (the weighted average tax rate for a facility with less than $50,000 annual 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 Ed's Gas and Go

Regulation violated 40 CFR section 280.40(c) - Failure to provide release detection by December 22, 1989 phase-in date.

Previous violations Notification violation (1986) - warning letter issued.

Date of requirement 12/22/89

Date of inspection 4/12/90

Date of compliance 4/22/89

Explanation (if appropriate): date of compliance is 10 days after inspection.

1. Days of noncompliance 120
2. Number of tanks 4

PART 2 - ECONOMIC BENEFIT COMPONENT

Avoided Expenditures $300 Basis: $2.50 per day for monitoring

Delayed Expenditures $2080 Basis: $520 per tank for tightness test

Weighted Tax Rate 0.15 (15%) Source: MTR for income < $50,000/year

Interest Rate 0.181 (18%) Source: BEN model (equity discount rate)

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

$$AC = \left[\$300 + \frac{(\$300 \times .181 \times 120)}{365}\right] \times [1 - .15] = \$270$$

3. Calculated Avoided Cost: $270

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 Petromart

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)

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

$$AC = \left[\$11,781 + \frac{\$11,781 \times .181 \times 430}{365}\right] \times (1 - .33) = \$9576$$

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 (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	+ 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.

PENALTY CALCULATION DATA

Violation: 40 CFR section 280.71(a)

Days of Violation: 94 days, from the latest required date of compliance (February 17, 1989) to the actual date of compliance (May 20, 1989), where actual compliance is assumed to be coincident with Ms. Kelly's report to the Agency.

Avoided expenditures: Deemed negligible.

Delayed expenditures: None.

Interest rate: 18.1% (the equity discount rate used in the BEN model for 1989).

Tax rate: 34% (the weighted average rate for a company with taxable income greater than $340,000).

PENALTY CALCULATION DATA

Violation: 40 CFR section 280.72(a)

Days of Violation: 64 days, from the latest required date of compliance (March 17, 1989) to the actual date of compliance (May 20, 1989), where actual compliance is assumed to be coincident with Ms. Kelly's report to the Agency.

Avoided expenditures: $8,500 x 3 USTs = $25,500 (where the average cost for a site assessment at closure is $8,500 per UST).

Delayed expenditures: None.

Interest rate: 18.1% (the equity discount rate used in the BEN model for 1989).

Tax rate: 34% (the weighted average rate for a company with taxable income greater than $340,000).

PENALTY CALCULATION DATA

Violation: 40 CFR section 280.74

Days of Violation: 64 days, from the latest required date of compliance (March 17, 1989) to the actual date of compliance (May 20, 1989), where actual compliance is assumed to be coincident with Ms. Kelly's report to the Agency.

Avoided expenditures: None.

Delayed expenditures: Deemed negligible.

Interest rate: 18.1% (the equity discount rate used in the BEN model for 1989).

Tax rate: 34% (the weighted average rate for a company with taxable income greater than $340,000).

[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 Darby Distributors

Regulation violated 40 CFR section 280.71 (a) - Failure to notify 30 days prior to tank closure.

Previous violations None

Date of requirement 2/15/89

Date of inspection N/A

Date of compliance 5/20/89

Explanation (if appropriate):

1. Days of noncompliance 94
2. Number of tanks 3

PART 2 - ECONOMIC BENEFIT COMPONENT

Avoided Expenditures 0 Basis: Costs for notification negligible.

Delayed Expenditures N/A Basis: _____

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 or
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 at 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 negotiation. only after being warned o impending administrative o
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:

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

3. Calculated Avoided Cost: $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 negotiation only after being warned of impending administrative order
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: { $2.50 per day for monitoring; $520 per UST tightness test } 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 be paid on $1,000,000 letter of credit for

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)

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

3. Calculated Avoided Cost: 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 in negotiations and pay penal
9. Degree of willfulness or negligence:	+50%	$1000	+$500	As national marketers, compa 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 _____