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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE ADMINISTRATOR

IN THE MATTER OF)
)
CLARK REFINING & MARKETING CORP.) Docket No. CAA-05-93
)
Respondent)

Pursuant to Section 113(d) of the Clean Air Act, 42 U.S.C. § 7413(d), respondent is found in violation of the following: (1) 40 C.F.R. § 60.104(a)(1), for combustion of fuel gas with concentrations exceeding the limit for hydrogen sulfide; (2) 40 C.F.R. §§ 60.105(a)(4) and 60.13(e), for failure to continuously operate its hydrogen sulfide monitor; and (3) 40 C.F.R. § 60.11(d), for failure to, at all times, operate its facility in a manner consistent with good air pollution control practice for minimizing emissions.

INITIAL DECISION

By: Frank W. Vanderheyden
Administrative Law Judge

Dated: March 9, 1995

Appearances:

For Complainant:

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For Respondent:

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INTRODUCTION

This is a proceeding pursuant to Section 113(d)(1)(B) of the Clean Air Act (CAA), 42 U.S.C. § 7413(d)(1)(B), which authorizes the assessment of civil penalties for any violation of the requirements or prohibitions in Subchapter I. On December 30, 1992, the United States Environmental Protection Agency, Region V (sometimes complainant or EPA), initiated the complaint in this matter against Clark Refining and Marketing Corporation (Clark or respondent). Complainant charges respondent with the following three counts of the New Source Performance Standards (NSPS) for Petroleum Refineries, 40 C.F.R. Part 60, Subpart J: (1) combustion of fuel gas with concentrations exceeding the limit for hydrogen sulfide in violation of 40 C.F.R. § 60.104(a)(1); (2) failure to continuously operate its hydrogen sulfide monitor as required by 40 C.F.R. §§ 60.105(a)(4) and 60.13(e); and (3) failure to, at all times, maintain and operate its facility in a manner consistent with good air pollution control practice for minimizing emissions, as required by 40 C.F.R. § 60.11(d). These regulations were promulgated under Section 111(b) of the CAA, 42 U.S.C. § 7411(b). Section 111(e) of the CAA, 42 U.S.C. § 7411(e), prohibits operation in violation of any NSPS regulation. For the alleged violations, complainant proposed a penalty of \$100,000.

On February 4, 1993, respondent served its answer to the complaint. Complainant then filed a motion for partial accelerated decision dated June 23, 1994¹. After respondent's response on

¹ Unless otherwise indicated, all dates are for the year 1994.

July 19, the undersigned Administrative Law Judge (ALJ) denied complainant's motion in an order of July 21.

Based upon recently acquired information, regarding excess emissions in Count I, complainant filed a motion to amend its complaint on July 19. The amended complaint proposed a new penalty of \$199,200. Respondent did not oppose this motion, and accordingly, the ALJ granted the amendment in the July 21 order. On August 2, respondent served its answer to the amended complaint. The parties filed, on August 12, joint stipulations of fact and law. An evidentiary hearing was held in this matter on August 23-24.

To be determined here is whether or not the allegations raised in the complaint are supported by a preponderance of the evidence.² "Preponderance of the evidence" is the degree of relevant evidence which a reasonable mind, considering the record as a whole, might accept as sufficient to support a conclusion that the matter asserted is more likely to be true than not true.

All proposed findings of fact and conclusions of law inconsistent with this decision are rejected by the ALJ. Further, it is not required that the ALJ decide every single issue raised in these proceedings. It is sufficient that there be a resolution of only those major questions requisite for a decision.

² The applicable section of the Consolidated Rules of Practice, 40 C.F.R. § 22.24, provides in pertinent part, that: "Each matter in controversy shall be determined by the Presiding Officer upon a preponderance of the evidence."

FINDINGS OF FACT

Based upon a review of the evidence, the following are the findings of fact.³ Clark is in the business of owning and operating a petroleum refinery in Hartford, Illinois. This refinery, consisting of roughly 300 employees, produces about 65,000 barrels of crude oil a day. (Tr. 200-01.) As of March 31, 1991, a Dun & Bradstreet report listed Clark's net worth as \$139.5 million. (CX-16 at 1; Tr. 172.)

During the refinery process, some of the fuel gas produced is circulated into an area known as the "fuel gas loop" and used for operating certain units in the facility. (CX-23; Tr. 74-75.) Clark's fuel gas loop has 21 air emissions sources connected to it. Of these sources, seven were constructed or modified after 1973. (Tr. 201.) The fuel gas in the loop contains hydrogen sulfide (H₂S). When burned, H₂S forms sulfur dioxide which is harmful to humans, as an irritant to the respiratory system, and harmful to the environment, as the precursor to "acid rain." (Tr. 158.)

Clark uses amine "scrubbers" to keep H₂S within allowable limits. The scrubbers consist of long columns upon which diethanolamine solution (DEA) trickles down. DEA is a substance that has the ability to dissolve or absorb H₂S. Thus, when the

³ The findings necessarily embrace an evaluation of the credibility of the witnesses testifying on particular issues. This involves more than merely observing the demeanor of a witness. It also encompasses an evaluation of their testimony in light of its rationality or internal consistency and the manner in which it blends with other evidence. 9 Charles A. Wright & Arthur R. Miller, Federal Practice and Procedure: Civil, § 2586 at 736-37 (1971).

fuel gas is directed toward the scrubbers, the latter, armed with its DEA, removes the H_2S from the fuel gas. Now the fuel gas, being below certain levels of H_2S , can be burned for operational purposes. (Tr. 75-76.)

The DEA which has just become saturated with H_2S is referred to as "fat" amine. The fat amine is diverted to an amine "regenerator" where the H_2S is stripped from the DEA. Once the fat amine is converted back into lean (i.e., low concentration of H_2S) amine, it is recirculated back to the scrubbers where the process begins anew. (Tr. 76-77.)

Sometime in 1975, Clark, Amoco and Shell Oil Company (Shell) participated in the joint construction of an amine regenerator facility. The regenerator was to be run by an independent third party. (Tr. 209-10.) However, on April 30, 1976, Shell purchased the facility. (JX-21.) Therefore, Clark neither owns nor operates an amine regenerator system. Without a regenerator, Clark does not own or have any control over the quality (i.e., lean or fat amine) of the DEA. (Tr. 83-85, 229.) Instead, it opted to contract with Shell for its DEA supply and regeneration. (JX-18; Tr. 228.) This service contract is accomplished by pipes on adjacent tracts of land. (JX-18 at 5-6.)

From the second quarter of 1990 through the first quarter of 1991, Clark experienced excess emissions of H_2S , as a result of high levels of H_2S in the lean amine from Shell. (JX-1 - JX-4.) Essentially, the DEA being recirculated back to Clark was returning

as fat instead of lean amine, and consequently, possessing limited ability to scrub H₂S from the fuel gas. (Tr. 88.)

During the first quarter of 1992, Clark submitted excess emission reports (EERs) to the Illinois Environmental Protection Agency (IEPA) for H₂S as measured by its continuous emission monitor (CEM). (JX-8.) For the required three-hour measuring period, Clark had excess emissions on ten days: February 4, 28, 29; March 5, 6, 24, 25, 27, 28 and 29. These emissions ranged from 0.108 to 0.214 grains per dry standard cubic foot. (JX-8 at 12.) This converted to 247.1 to 489.7 milligrams per dry standard cubic meter (mg/dscm). (Complainant's Initial Br. at 4.) All EERs were signed by a company official who certifies to the truth and accuracy of the report. (Jt. Stip. ¶ 27.)

The EER also documented that Clark's certified CEM was not operating for 77 hours. Sixty-five of the hours were the result of quality assurance calibration, and the remaining 12 were due to nonmonitor equipment malfunctions. (JX-8 at 10.) In a letter to U.S. EPA, Region V, dated November 30, 1992, Clark elaborated on the CEM downtime. The CEM was not functioning from 5 p.m. on January 21, 1992, until 7 a.m. January 22, 1992, because the sample line from the main fuel gas line to the CEM became clogged. (JX-15; Tr. 214.)

During the second quarter of 1992, Clark recorded the following 12 days on which it had excess emissions for the three-hour measuring period: April 4, 5, 7, 8, 9, 10, 14, 15, 17, 21, 23; and May 16. These emissions ranged from 234 to 390 mg/dscm.

The cause of the emissions stemmed from high H₂S content in the lean amine from Shell. As corrective action, Clark reduced the amount of fuel gas produced by cutting the overall refinery production rate. (JX-9 at 11-12.)

In an internally posted policy⁴ at the refinery, dated May 18, 1992, Clark enumerated specific steps to be followed when high H₂S concentrations were detected. (RX-3; Tr. 203.) The procedures consisted of different measures to reduce refinery production, which in turn would decrease H₂S levels, because less fuel gas would be produced. The policy was triggered whenever emissions reached above 120 parts per million (ppm) in order to apply corrective action before the levels exceeded the limit.⁵ (Tr. 206.)

For the third quarter of 1992, four days were registered by Clark as exceeding the emission limit for the three-hour measuring period: July 21; August 4, 5; and September 11, with a range between 239 to 480 mg/dscm. Like the second quarter, all excess emissions resulted from a high level of H₂S in the lean amine. Similarly, the corrective action again was to cut the production rate. (JX-10 at 3.)

On September 25, 1992, U.S. EPA issued Clark a Finding of Violation for its excess emissions of H₂S under the NSPS for petroleum refineries. (JX-14.) This letter offered Clark the

⁴ This policy was called "fuel gas action sheet."

⁵ Because the CEMs measured emissions in ppm, the policy was expressed in the same measurement to avoid confusion. At 162 ppm, Clark would exceed the limit for H₂S emissions. (Tr. 204-05.)

opportunity for a conference to discuss and explain the circumstances surrounding the violation. On November 19, 1992, Clark participated in such a conference with U.S. EPA. (Tr. 150-51.) The excess emissions of H₂S in the fuel gas were caused by elevated levels of H₂S in the DEA from Shell. Consequently, the scrubbers could not effectively remove H₂S from the fuel gas. The action initiated to attain compliance was the reduction in the overall refinery production rate, which would decrease the amount of fuel gas produced.

For the first quarter of 1994, Clark reported excess emissions on 25 days: January 4 through 22, 24, 26, 27; March 1, 8 and 21. (JX-11 at 4-6, 10.) The levels listed were based upon another technique of gas sample analysis, referred to as Draeger Tube⁶, because the excess emissions exceeded the measuring capability of the usual CEM. (Tr. 49.) The readings of the Draeger Tube needed to be converted from one-hour to three-hour measurements, and then from ppm to mg/dscm. (CX-5, CX-4; Tr. 47-48, 50-53.) The emissions ranged from 231 to 2,833 mg/dscm. On January 7 through January 17, the emissions were at a constant 2,833 mg/dscm. (CX-4 at 1-2.) Once again the reason for these excess emissions was stated to be a high level of H₂S in the lean amine. (JX-11 at 3.) Bill Irwin (Irwin), Clark's environmental manager, elaborated that the regenerator system had become completely inoperable. As a

⁶ The CEM is required to have a range from 0 to 300 ppm. Whereas, the Draeger Tube has the ability to measure in hundreds of thousands of ppm. (Tr. 54-55.)

result, the DEA was arriving with levels of H₂S as high as the departing fat amine. (Tr. 209.)

On January 4, 1994, following its internal policy, Clark began cutting back on the charge to the units and placed its distillate hydrodesulfurization unit (DHDS) on circulation⁷ to assess the situation. (Tr. 210-11.) The next day Clark put the DHDS unit back in production. (CX-34 at 6.) In addition, respondent notified IEPA of the problem with Shell's regenerator system and its anticipated corrective actions. (JX-16.) Approximately two days later, Clark purchased sweet crude⁸ for operating the refinery. (Tr. 211.) The reduced production rate and purchase of alternative supplies cost Clark an estimated \$20,000-\$40,000 per day. For about 21 days Clark operated under these conditions, which totaled a cost outlay of \$400,000-\$800,000 for January. (Tr. 211-12.)

Another measure to reduce emissions of H₂S was the input of natural gas into the fuel gas loop containing the NSPS emission sources. Natural gas has no or small amounts of H₂S. (Tr. 80.) Clark utilized this option sparingly due to the high cost and the priority given to residential customers. (CX-34 at 22; Tr. 218-19, 237-38.) Moreover, Clark determined that using natural gas would have resulted in an increase of sulfur dioxide in the atmosphere

⁷ This process keeps the crude feed in a temporary holding state without processing it. As a result, with no feed going into the system, no H₂S is produced as a by-product. (Tr. 90, 93.)

⁸ Sweet crude is crude oil that contains a low sulfur content. (Tr. 211.)

because "unscrubbed" fuel gas would be emitted through the refinery flare (Tr. 219-20.)

Clark never shut down either its fuel gas combustion devices subject to NSPS or its refinery to avoid exceeding the limit for H₂S emissions. (Tr. 221.)

DISCUSSION AND CONCLUSIONS OF LAW

Under Section 111(b)(1)(A) of the CAA, 42 U.S.C. § 7411(b)(1)(A), the Administrator shall publish a list of categories of stationary sources that "cause or contribute significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." Additionally, the Administrator is required to publish regulations establishing performance standards for new sources listed within Section 111(b)(1)(A). Sections 111(b)(1)(B) and 111(f) of the CAA, 42 U.S.C. §§ 7411(b)(1)(B), 7411(f). In accordance with Section 111, EPA promulgated regulations establishing NSPS for petroleum refineries located at 40 C.F.R. Part 60, Subpart J. Section 111(e) of the CAA, 42 U.S.C. § 7411(e), prohibits any owner or operator of any new source from operating in violation of any applicable standard of performance, after the effective date of the promulgated standards. The parties have stipulated that Clark is subject to the NSPS regulations in 40 C.F.R. Part 60, Subpart J. (Jt. Stips. ¶¶ 19-25.)

I. Count I

Count I alleges that respondent violated 40 C.F.R. § 60.104(a)(1) on 51 days. Section 60.104(a)(1) prohibits each owner or operator from burning in combustion devices any fuel gas that contains H₂S in excess of 230 mg/dscm. Clark submitted EERs for the first quarter through the third quarter of 1992, and the first quarter of 1994. Based upon these EERs, the total number of days Clark identified on which it exceeded the emissions limit for H₂S was 51. (Tr. 55.) Respondent stipulated to the accuracy of its EERs, and does not contest the 51 days of alleged excess emissions of H₂S. It is concluded that respondent is liable for the violations charged in count I.

II. Count II

Count II alleges that respondent failed to continuously operate its CEM on two days pursuant to 40 C.F.R. §§ 60.105(a)(4) and 60.13(e). Section 60.105(a)(4) requires the installation of a CEM for recording the level of H₂S in fuel gas before combustion. Section 60.13(e) demands all continuous monitoring systems to be in continuous operation, except during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments.

Despite the admission that its CEM was not functioning for two days (JX-15), respondent contends that this downtime was allowable as a "system breakdown" under 40 C.F.R. § 60.13(e). Irwin explained that Clark's CEM became inoperative when its sample line, which connected the main fuel gas line to Clark's CEM, became

clogged. (Tr. 214.) Thus, respondent argues that this incident does not constitute any violation because it was the result of a "system breakdown."

The issue here is to ascertain the meaning of "system breakdown" under the continuous monitoring requirement. In construing regulations, as with statutes, we look first to the plain meaning of the language used. If that is ambiguous, the next step is to construe the meaning in light of its administrative interpretation. In the absence of administrative guidance, a court applies the usual rules of statutory construction, considering the purpose behind the statute and its regulations, and the consequences of suggested interpretations in order to determine the intent of the enacting body. U.S. v. Heller, 726 F.2d 756, 762 (Temp. Emer. Ct. App. 1983) (citations omitted); Thriftway Co. v. U.S. Dept. of Energy, 920 F.2d 23, 26 (Temp. Emer. Ct. App. 1990) (citing Heller).

In this case, the plain meaning of "system breakdown" is not discernible as used in Section 60.13(e). Reference to the definition section provides no clarification either because "system breakdown" is not defined. 40 C.F.R. § 60.2. As a result, the term "system breakdown," standing alone, is broad enough to support both parties' interpretations. For example, respondent's argument that its clogged sample line was a "system breakdown" could be a reasonable interpretation. On the other hand, Patric McCoy (McCoy), an expert in CEM operation, explained that reoccurring problems are generally not considered "system breakdowns." Rather,

a "system breakdown" is akin to a malfunction, and thus, entails something unforeseen or unavoidable. (Tr. 138.) Consequently, respondent's clogged sample line would not qualify as a system breakdown because a similar problem had occurred in the first quarter of 1991. (JX-7 at 4; JX-8 at 10.)

Turning to the next step, neither party has brought forth an administrative interpretation of the word "system breakdown." Nevertheless, complainant cites to Chevron U.S.A., Inc. v. N.R.D.C., Inc., 467 U.S. 837, 844 (1984), for the proposition that an agency's interpretation of its own regulations is entitled to great deference by the courts. Under Chevron, complainant argues that McCoy clearly expressed EPA's interpretation of Section 60.13(e).

Complainant's argument is misplaced. The rule cited by complainant is dependent upon the EPA's interpretation of its regulations not enforcement counsel's or McCoy's. See 1 Kenneth C. Davis & Richard J. Pierce, Jr., Administrative Law Treatise, § 3.5, at 119-20 (3d ed. 1994)(emphasis added). Complainant contends that McCoy's interpretation articulated EPA's interpretation of Section 60.13(e). However, complainant has not produced any documents expressing a similar position by EPA. Accordingly, this rule is not applicable.

As the meaning of "system breakdown" remains ambiguous, it must be construed in light of the purpose behind the regulation.

For those sources that were designated by the Administrator as contributing significantly to air pollution, continuous emission systems were mandated to assure facilities remained in compliance by constantly monitoring the levels of emissions. 39 Fed. Reg. 32852 (September 11, 1974). Furthermore, the continuous emission monitoring regulations were aimed at providing the owner or operator of these facilities with accurate and reliable data for determining whether the plant is following proper operation procedures to achieve continuous compliance. 40 Fed. Reg. 46250 (October 6, 1975).

Insight into proper construction of "system breakdown" can also be provided from the definition of "malfunction." Under 40 C.F.R. § 60.2, malfunction is defined as follows:

[A]ny sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

While the actual words "system breakdown" do not appear here, this definition incorporates analogous phrases. Control or process equipment are an integrated part of a system. Additionally, a breakdown involves some type of equipment failure. Thus, using the definition of malfunction as a guide, a system breakdown would constitute something sudden and unforeseen.

The similarity between "system breakdown" and "malfunction" is further supported by EPA's internal memorandum⁹, of which the ALJ takes official notice, regarding its policy on excess emissions. Malfunction is defined here as a sudden and unavoidable breakdown of process or control equipment. (Mem., Attach. at 1.) (emphasis added). In this instance, EPA explicitly uses the word breakdown in the definition of malfunction. Additionally, breakdown is used in reference to process or control equipment. Also, EPA's emphasis on unforeseeability is definitive in delineating the scope of malfunction. In this regard, EPA states any activity which can be foreseen and avoided or planned does not fall within the definition of a sudden and unavoidable breakdown. On the other hand, if excess emissions are the result of sudden and unforeseen events, then penalties are not appropriate. (Mem., Attach. at 1.)

In light of the above analysis, complainant's interpretation of "system breakdown" is more reasonable. Accordingly, it is found that a system breakdown requires there be an occurrence which is unforeseen, sudden and unavoidable. This definition supports the purpose behind the CEM of providing continuous information to ensure compliance at all times for sources emitting pollutants that contribute significantly to air pollution. As McCoy related, reoccurring problems would not fit under the term "system breakdown" because they are foreseeable and avoidable through due

⁹ This memorandum, dated February 15, 1983, from the Assistant Administrator for Air, Noise and Radiation is entitled, "Policy on Excess Emissions during Startup, Shutdown, Maintenance, and Malfunctions."

diligence. On the other hand, if respondent's interpretation were adopted, then the purpose of the CEM could be thwarted as a facility could characterize a continuing failure as a "system breakdown" without acting to repair or prevent the problem. (Tr. 137-38.) The record demonstrates that respondent's CEM was not operating in both the fourth quarter of 1991, and the first quarter of 1992. (JX-7 at 4; JX-8 at 10.) Thus, based upon the foreseeable reoccurrence of this downtime, respondent failed to continuously operate its CEM on two days. It is concluded that respondent is responsible for the violations charged in Count II.

III. Count III

Count III alleges that respondent failed to use "good air pollution control practices for minimizing emissions" under 40 C.F.R. § 60.11(d), by operating without adequate amine regeneration for its scrubbers. Section 60.11(d) requires that owners and operators shall at all times, to the extent practicable, maintain and operate the facility and associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

Respondent argues first that complainant offered no testimony or exhibits on what constitutes "good air pollution control practice." Thus, there is no basis on which to determine whether respondent operated in accordance with this requirement. Respondent's contention must be rejected. As complainant correctly notes, Section 60.11(d) lays out criteria to determine whether

acceptable operating and maintenance procedures were used. (Complainant's Initial Br. at 18-19.) These criteria include, but are not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. 40 C.F.R. § 60.11(d). Therefore, under the criteria above, respondent's H₂S emission results and operating procedures can be used to decide whether it met the "good air pollution control practice" standard.

Respondent next argues that, except for shutting down, it operated in a manner consistent with good air pollution control practices by instituting all possible steps to minimize emissions. The record, however, does not bear fruit to this assertion. As early as the second quarter of 1990, respondent was experiencing excess emissions of H₂S due to high levels of H₂S in the lean amine from Shell. (JX-1.) During the second and third quarter of 1992, elevated levels of H₂S in the lean amine were again causing excess emissions of H₂S. Thus, respondent was aware of Shell's amine regenerator problem, nevertheless, it continued to operate its refinery, when the regenerator was in a defective condition.

In the preamble to the final rule, EPA pronounced that the standard in Section 60.11(d) precluded continued operation in a malfunctioning condition. 38 Fed. Reg. 28565 (October 15, 1973) (emphasis added). Therefore, "good operating and maintenance practices" would certainly preclude continued operation when respondent knew of the potential for Shell's amine regenerator to not function properly. Moreover, in each case, respondent's

corrective action consisted of reduction in the overall refinery production rate. Despite this attempt at compliance, the record reflects that Clark still exceeded the limit for H₂S on at least two consecutive days during the periods of emission violations for the first through third quarter of 1992. (JX-8 at 12; JX-9 at 11; JX-10 at 3.) Hence, it is difficult to perceive respondent's conclusion that it acted "to the extent practicable to minimize emissions."

Respondent's lack of "good air pollution control practice to minimize emissions" is readily apparent when Shell's regenerator system collapsed in the first quarter of 1994. In response, Clark again implemented its various reduced production procedures. Respondent also used sweet crude and natural gas as alternative supplies. Notwithstanding these actions, Clark's emissions still exceeded the limit for H₂S, including a period of 19 consecutive days. (CX-4 at 1-3; Tr. 233-34.) In fact, the record shows that on 11 consecutive days respondent operated its refinery with emissions at over ten times the allowable limit. Such continued operation defies "good air pollution control practice for minimizing emissions," when readings from its CEM kept indicating extremely high levels of H₂S emissions. Faced with this situation, although a decision to cease operation¹⁰ may have been burdensome and costly, such action may have been "practicable" within the

¹⁰ Respondent had two different shut down options according to McCoy. First, respondent could have ceased operations of those fuel gas combustion devices subject to the NSPS. Second, during prolonged periods of uncontrolled emissions, Clark could have closed the entire refinery. (Tr. at 90, 96.)

meaning of Section 60.11(d). See U.S. v. Nevada Power Co., 31 ERC 1888, 1892 n.3 (D. Nev. 1990) (operation of coal-fired plant without its air pollution control equipment functioning). It is concluded that respondent is responsible for the violations alleged in Count III.

APPROPRIATENESS OF PENALTY

Having concluded that respondent is liable for the violations alleged herein, it now remains to be determined what constitutes an appropriate penalty. Section 113(d) of the CAA, 42 U.S.C. § 7413(d), allows the Administrator to assess a penalty of up to \$25,000 per day of violation, and not exceeding a total penalty of \$200,000 for a violation of any requirement in Subchapter I. In determining the amount of any penalty, the Administrator is required to consider several factors listed in Section 113(e)(1), 42 U.S.C. § 7413(e)(1). Further, under 40 C.F.R. § 22.27(b), when calculating a penalty, the ALJ is also required to consider any applicable civil penalty guidelines issued under the respective Act.

Respondent attacks any application of a penalty policy by arguing that such policies are not binding regulations without being subject to the rule making procedures of the Administrative Procedure Act, 5 U.S.C. § 553. This argument has already been addressed and rejected in previous cases because it misconstrues the function of the penalty policies. The penalty policy guidelines supply a framework for the uniform application of the

statutory penalty criteria. Moreover, the penalty policies provide a coherent, reviewable explanation of the penalty determination. However, they serve as guidelines only and do not rise to the level of binding regulations. In re Great Lakes Division of National Steel Corp., EPCRA Appeal No. 93-3, at 23-24 (EAB, June 29, 1994) (citations omitted). The language of Section 22.27(b) makes this non-binding aspect clear by only requiring the ALJ to consider any applicable civil penalty policy (emphasis added). After the ALJ considers the penalty policy, the ALJ has full discretion to assess a penalty, different from any proposed penalty calculated pursuant to a penalty policy, provided the reasons for departure are explained adequately. In re A.Y. McDonald Industries, Inc., RCRA (3008) Appeal No. 86-2, at 18-19, (CJO, July 23, 1987).

I. The CAA Stationary Source Civil Penalty Policy

The final CAA Stationary Source Civil Penalty Policy (Policy) applicable to this proceeding is dated October 25, 1991. In calculating a penalty, the Policy requires consideration of the same factors listed in Section 113(e) of the CAA. In this regard, the Environmental Appeals Board has approved of the Policy's framework because it reasonably implements the statutory criteria in Section 113(e). In re House Analysis & Associates & Fred Powell, CAA Appeal No. 93-1, at 10 (EAB, February 2, 1993).

II. Application of the Policy

The Policy sets out a penalty calculation method consisting of two primary components. The first step involves determining the "economic benefit" from noncompliance. The second step calls for computing the "gravity" of the violation, which reflects the seriousness of the violation. These two components combined yield the "preliminary deterrence amount" (PDA). (CX-12 at 3-4.) In order to achieve a fair and equitable penalty, each component contains adjustment factors to move the penalty upwards or downwards according to the specific situation.

A. Economic Benefit Component

No penalty was proposed by complainant for this component.

B. Gravity Component

The gravity component incorporates the statutory mandated factors in Section 113(e) concerning the size of the business, duration of the violation and the seriousness of the violation. (CX-12 at 8.) Specifically, this component consists of four factors: (1) actual or possible harm; (2) importance to the regulatory scheme; (3) size of the violator; and (4) adjustment factors.

1. Actual or Possible Harm

This factor focuses on whether and to what extent the activity of the respondent resulted in or was likely to result in the

emission of a pollutant in violation of the level allowed by an applicable state implementation plan, federal regulation or permit. (CX-12 at 9.) The assessment of actual or possible harm is made on the basis of four subfactors: (1) level of the violation; (2) toxicity of the pollutant; (3) sensitivity of the environment; and (4) length of time of the violation. (CX-12 at 9-12.)

a. Level of Violation

This subfactor measures the percentage by which emissions of a pollutant exceed the applicable limit. The Policy explains that the highest documented level of a violation should be used, unless that level is not representative of the period of violation. If the level is not representative of the given violation, then a more customary level may be used. (CX-12 at 10.)

Clark's emission limit for H₂S is 230 mg/dscm. As reflected in respondent's EERs, there were 51 days on which it exceeded the limit. The record also shows that for 11 consecutive days Clark's emission level reached as high as 2,833 mg/dscm. (CX-4 at 1-2.) Cynthia Curtis (Curtis), an environmental scientist who calculated the proposed penalty, determined that the above excess emissions were not a representative level. Therefore, Curtis computed an average of Clark's excess emissions. This resulted in a figure of 771 mg/dscm or 235% above the emission limit for H₂S. (CX-15 at 2; Tr. 161.) Curtis, therefore, assigned a \$40,000 penalty, pursuant to the Policy, which recommends such an amount for emissions between 211 percent through 240 percent above the standard. (CX-12

at 10; Tr. 161.) Curtis' calculation is certainly reasonable, especially considering the significant reduction from Clark's highest emission level.

b. Toxicity

No penalty was proposed here because neither H₂S nor sulfur dioxide are listed as hazardous air pollutants under Section 112(b)(1) of the CAA, 42 U.S.C. § 7412(b)(1). (CX-15 at 2; Tr. 161.)

c. Sensitivity of Environment

Sensitivity of environment analyzes the specific area where the violation occurred. (Tr. 162.) The penalty amount is based upon the status of the air quality control district in question with respect to the pollutant involved in the violation. (CX-12 at 11.) Clark's facility was classified as being in a Class II attainment area for sulfur dioxide. (CX-22 at 136; CX-18; Tr. 166.) Under the Policy, a Class II attainment area merits a \$5,000 penalty. (CX-12 at 11; Tr. 166.)

In the area of its facility, respondent argues that there is no evidence of any impact on the quality of the air, which is already in attainment for sulfur dioxide. Clark's argument is misplaced. Whether or not an area is in attainment is not the focus. The CAA and its implementing regulations prohibit any excess emissions regardless of whether an area is in attainment for the pollutant in question. The Policy effectuates this requirement

by imposing penalties for actual or potential harm. This approach is sound due to the difficulty in quantifying the exact harm of air pollution where the damage is often evanescent. See Fallowfield Development Corp. v. Strunk, 1990 U.S. Dist. LEXIS 4820 at *27 (E.D. Pa. 1990) (distinguishing between the harm which results from violating different pollution limits). Thus, as long as a potential adverse effect on the quality of the air exists, establishing actual environmental damage is not necessary to impose penalties. See N.R.D.C., Inc. v. Texaco Refining and Marketing, Inc., 800 F. Supp. 1, 24 (D. Del. 1992), modified on appeal, 2 F.3d 493 (3d Cir. 1993).¹¹ In that sulfur dioxide can cause respiratory problems and acid rain, such potential is present. Accordingly, a \$5,000 penalty is proper for this subfactor.

d. Length of Time of Violation

The length of time subfactor imposes a penalty based upon the number of days for each violation. First, Clark's EERs reflected that there were 51 days of excess emissions. (Tr. 55, 167.) Under the Policy and clarifications to the penalty policy, 51 days is equal to two months, and yields a penalty of \$8000. (CX-13 at 1; CX-12 at 12; Tr. 167.) Second, Clark's CEM was not functioning for two days. (JX-15; JX-8 at 10; Tr. 167.) Based upon the Policy, a

¹¹ Although N.R.D.C. was a suit under the Clean Water Act (CWA), this principle still applies here because the CWA and the CAA are in pari materia with one another. See U.S. v. Midwest Suspension and Brake, 824 F. Supp. 713, 735 (E.D. Mich. 1993) (citing U.S. v. Stauffer Chemical Co., 684 F.2d 1174, 1187 (6th Cir. 1982), aff'd on other grounds, 464 U.S. 165 (1984)).

two-day violation falls within the 0 to one month category, producing a \$5,000 penalty. (CX-12 at 12; Tr. 167.) Respondent does not controvert its own documentation of the duration of these violations. Thus, the total proposed penalty of \$13,000 for this subfactor is proper.

In sum, the penalty for counts I-III under the first factor, actual or possible harm, is \$58,000.

2. Importance to the Regulatory Scheme

This factor focuses on the importance of the requirement at issue to achieving the goals of the CAA and its implementing regulations. (CX-12 at 9.) For emission control equipment violations, the Policy states that improper or intermittent operation or maintenance of control equipment merits a penalty between \$5,000 and \$15,000. (CX-12 at 13.) Clark's emission control equipment consists of its amine scrubbers, which remove H₂S from the fuel gas. (Tr. 75-77; 170.) Based upon Clark's continued excess emissions, without lean amine for its scrubbers, it was determined that Clark was not properly operating its emission control equipment. Thus, a \$10,000 penalty was proposed. (Tr. 171.)

Respondent contends that it did everything possible to reduce emissions, except close its facility. As addressed, supra, at 17-18, this argument is not persuasive. While Clark implemented various measures to cut back on the normal production rate, it still operated without its control equipment functioning, despite

feedback from its CEM of emission levels well beyond the 230 mg/dscm limit. Accordingly, a \$10,000 penalty for improper operation of control equipment is deemed proper.

The Policy also assigns a penalty of \$15,000 for failure to maintain and operate the required monitoring equipment. (CX-12 at 13.) Because Clark failed to operate its CEM on two days, it was assessed a \$15,000 penalty. (JX-15; JX-8 at 10; Tr. 169.) Respondent does not dispute its admission regarding two days of downtime. Thus, a \$15,000 penalty is appropriate for failure to operate the required monitoring equipment, making a total of \$25,000 for the second factor in the gravity component calculation.

3. Size of Violator

The size of the violator centers on the violator's net worth. (CX-12 at 10.) Complainant computed respondent's net worth according to a Dun & Bradstreet report¹² (CX-16.) Respondent characterizes the use of this report as unreliable hearsay. Clark further argues that the only direct evidence of its financial condition is Irwin's testimony that it lost money during the period of violations. (Tr. 235.)

Respondent's argument is without merit. First, Dun & Bradstreet reports are considered reliable evidence of a respondent's general financial status. See James C. Lin & Lin Cubing, Inc., FIFRA Appeal No. 94-2, at 6, (EAB, December 6, 1994).

¹² Although this report is dated March 31, 1991, Curtis explained that reports after this date only demonstrated higher net worth. (Tr. 184.)

Additionally, the Policy explicitly states that net worth can be determined from Dun & Bradstreet reports. Second, whether respondent lost money during the period of violation is irrelevant. The focus of this factor is on the total assets of the respondent. (CX-12 at 10.) Respondent has not produced a different figure of net worth from that contained in the Dun & Bradstreet report. Thus, this figure of 139.5 million is found to be accurate. (CX-16.) For a company with a net worth of 139.5 million, the Policy lists a \$120,000 penalty. However, if this figure represents over 50 percent of the PDA, then the penalty may be adjusted to 50 percent of the PDA. (CX-12 at 15; Tr. 172-73.) In this case, the PDA is the sum total of only the gravity component factors, since no penalty was proposed for economic benefit. The total of the two previous factors was \$83,000. If \$120,000 were to be assessed for the size of the violator, then this amount would be greater than 50 percent of the PDA.¹³ Thus, the size of the violator penalty was adjusted to \$83,000. (CX-15 at 4; Tr. 173.) This amount is an appropriate penalty for size of the violator factor. Accordingly, the total penalty or PDA is \$166,000.

4. Adjustment of Gravity Component

In order to promote equity when assessing penalties, the Policy allows for adjustments to the gravity component. The adjustments account for the particular circumstances of each case.

¹³ Adding \$120,000 to \$83,000, would yield a PDA of \$203,000.

(CX-12 at 15.) The gravity component may be mitigated, but only for the degree of cooperation. On the other hand, the gravity component may be aggravated for the degree of willfulness or negligence, history of noncompliance, and environmental damage. (CX-12 at 15-16.)

a. Degree of Willfulness or Negligence

This adjustment factor concentrates on the violator's degree of control over the violations; foreseeability of violations; level of sophistication within industry on compliance or appropriate control technology; and the violator's knowledge of the legal requirements which were violated. (CX-12 at 16.)

Complainant contends that respondent had the ability to control excess emissions of H₂S by cutting production rates and utilizing alternative fuel sources. Respondent counters by arguing, in accordance with its standard policy, it did all that was possible except shut down the refinery. Moreover, Clark asserts that the use of natural gas for its NSPS sources would actually result in a 1000 ton increase of sulfur dioxide emissions because unscrubbed fuel gas could be burned in its 14 existing old sources.¹⁴

Respondent's arguments are not convincing. Respondent had the capability to control H₂S emissions by reducing its production rate. However, the record does not demonstrate that respondent

¹⁴ The NSPS regulations in 40 C.F.R. Part 60, Subpart J, do not apply to respondent's sources which were in existence before June 11, 1973. 40 C.F.R. § 60.100(b).

utilized this potential to the fullest. While respondent instituted measures to cut back on the production rate, these reductions were not accompanied by a sufficient decline in H₂S emissions. On the contrary, each period of violation resulted in at least two consecutive days of noncompliance. Moreover, the first quarter of 1994, resulted in 21 consecutive days of noncompliance at extremely excessive levels. When Clark's excess emissions were at their highest levels in January of 1994, no compliance was achieved from reduced production or alternative supplies. (Tr. 233-34.) Accordingly, respondent's argument concerning its efforts on controlling emission levels carries little weight. C.f. Nevada Power Co., 31 ERC at 1891 (D. Nev. 1990) (where reducing load and operational levels allegedly resulted in meeting emission standards when control equipment was inoperative).

Respondent's characterization of natural gas use is also not persuasive. Although natural gas was not available in cheap, copious amounts for commercial use, it was, nonetheless, obtainable. (CX-34 at 22.) The use of natural gas, in conjunction with a lower production rate than respondent implemented, would have resulted in less emissions of H₂S. Moreover, as complainant points out (Complainant's Reply Br. at 7-8), respondent's suggestion to reconfigure its facility would be prohibited by the Prevention of Significant Deterioration of Air Quality (PSD) regulations in 40 C.F.R. § 52.21. The PSD regulations prevent any modification of facilities that would result in excess

concentrations of pollutants above the air quality standard or would cause a significant incremental deterioration of air quality, without first receiving approval from EPA.

Regarding the remaining factors of foreseeability, level of sophistication and knowledge of requirements, Clark does not raise any counter argument to complainant's presentation. Thus, it will be accepted as true. Based upon the above factors, complainant proposed a 20 percent upward adjustment of the PDA, for a sum of \$33,200. This amount is found to be reasonable, especially considering the foreseeability factor. From as early as 1990, Clark had repeatedly experienced problems with Shell's amine regeneration system, and corresponding excess emissions of H₂S. Hence, Clark was aware of the potential for future operational problems to occur. Nonetheless, when the system did collapse in January 1994, respondent continued to operate at levels producing high excess emissions of H₂S. Thus, Clark chose to rely on Shell's faulty control equipment to its own detriment. See U.S. v. Chevron U.S.A., Inc., 639 F. Supp. 770, 779 (W.D. Tex. 1985) (refinery, fined for emissions violations, foresaw the need to build its own amine regenerator system, but failed to do so for economic reasons). Accordingly, the penalty is now \$199,200.

b. Degree of Cooperation

The Policy calls for a downward adjustment in three instances: prompt reporting of violations when there is no duty; prompt correction of environmental problems; and cooperation during pre-

filing investigation. The maximum downward adjustment is 30 percent of the gravity component. (CX-12 at 17.) Respondent argues that it should receive a mitigation in penalty for its prompt notification to IEPA on January 5, 1994, regarding the collapse of the amine regenerator. (JX-16.) While cooperation with a state is a consideration for penalty reduction, it is not appropriate in the situation cited by respondent. Respondent was under a duty to report excess emissions, and it also failed to promptly correct this problem as evidenced by its noncompliance for almost the entire month of January.

c. Other Factors

Respondent asserts that a penalty is not warranted because it is a small refinery that lost money in both 1992 and 1993. (Tr. 235.) Respondent's argument on lost profits is immaterial. The focus of the CAA and the Policy is on the impact of the penalty on the violator's ability to continue its business. Respondent, however, has neither alleged a severe economic impact on its business or an inability to pay the proposed penalty. In fact, imposition of the proposed penalty would only amount to roughly .0014 percent of respondent's net worth.

Additionally, during January of 1994, Clark points to its efforts at compliance, which cost the refinery between \$400,000 to \$800,000. (Tr. 212.) Despite these efforts, none produced compliance. (Tr. 233-34.) If the cost of compliance is not a proper set-off against a penalty, then efforts that do not yield

compliance results are certainly not entitled to reductions in penalty. See, e.g., EPA v. Env'tl. Waste Control Inc., 710 F. Supp. 1172, 1244 (N.D. Ind. 1989), aff'd, 917 F.2d 327 (7th Cir. 1990); U.S. v. Vineland Chemical Co., 31 ERC 1720, 1728 (D.N.J. 1990), aff'd, 33 ERC 1316 (3d Cir. 1991) (compliance costs are not proper set-offs for penalties for noncompliance).

In assessing a penalty, Section 113(e) also requires consideration of other factors that justice may require. To the extent that the Policy does not make such an analysis, it is viewed as being inconsistent with the CAA. Although not raised by respondent¹⁵, the record reflects that a downward adjustment is appropriate in light of respondent's actions regarding its CEM. First, respondent exhibited prompt corrective action as the CEM was only down for 12 hours. Second, after the CEM was operating again, respondent moved the sample line, at a later date, to prevent similar incidents in the future. Third, respondent provided all this information to EPA a month before the complaint was filed. (JX-15.) Based upon the above, respondent is entitled to a downward adjustment of the penalty. Weighed against this mitigating factor, is the consideration that civil penalties have a deterrent effect regarding future violations, and should send a strong message to the regulated community. It must also be kept in mind that civil penalties should not be overly punitive. Under

¹⁵ The inquiry mandated under Section 113(e) of the CAA, 42 U.S.C. § 7413(e), requires a court to analyze the penalty assessment criteria in light of all evidence introduced at trial, and not simply the evidence a respondent introduces at trial. Midwest Suspension & Brake, 824 F. Supp. at 735 n.30.

these considerations and this specific situation, respondent should be granted a 30 percent downward adjustment to the penalty. Thus, it is determined that a condign civil penalty in this matter is \$139,440.

ORDER

IT IS ORDERED¹⁶ that:

1. A civil penalty in the amount of \$139,440 be assessed against respondent, Clark Refining & Marketing Corporation.

2. Payment of the full amount of the civil penalty assessed shall be made within sixty (60) days of the service date of the final order by submitting a certified or cashier's check payable to Treasurer, United States of America, and mailed to:

EPA Region V
Regional Hearing Clerk
P.O. Box 70753
Chicago, IL 60673

3. A transmittal letter identifying the subject case and the EPA docket number, plus respondent's name and address must accompany the check.



Frank W. Vanderheyden
Administrative Law Judge

Dated: March 9, 1995

¹⁶ Unless appealed pursuant to 40 C.F.R. § 22.30, or the Environmental Appeals Board (EAB) elects to review the same, sua sponte, as provided therein, this decision shall become the final order of the EAB in accordance with 40 C.F.R. § 22.27(c).



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

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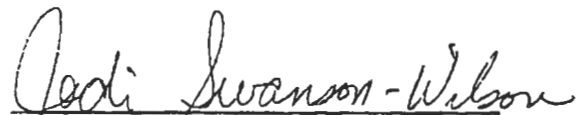
A copy of the Initial Decision in the subject matter of Clark Refining & Marketing Corp. No. CA-05-93 was sent in the manner indicated to each of the following on this 14th day of March 1995:

By Regular Mail to:

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