FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

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SECRETARY OF LABOR MINE SAFETY AND HEALTH ADMINISTRATION (MSHA), Petitioner	CIVIL PENALTY PROCEEDING Docket No. WEVA 2012-375 A.C. No. 46-06578-271611
v.	
JUSTICE ENERGY COMPANY, INC., Respondent	Mine: Red Fox Surface Mine

DECISION

Appearances: Daniel Brechbuhl, Esq., U.S. Department of Labor, Office of the Solicitor, Denver, Colorado, on behalf of the Petitioner;
James F. Bowman, Bowman Industries, LLC, Midway, West Virginia, on behalf of the Respondent.

Before: Judge Feldman

This civil penalty proceeding is before me based on a petition for assessment of civil penalty filed by the Secretary of Labor ("Secretary") under section 105(d) of the Federal Mine Safety and Health Act of 1977, as amended ("the Act"), 30 U.S.C. § 815(d), against the Respondent, Justice Energy Company, Inc. ("Justice"). This matter addresses the nature and extent of a variety of alleged violative conditions regarding the maintenance of mobile equipment at the Red Fox Surface Mine.

This docket concerns a total of eighteen citations, seven of which have settled. Of the remaining eleven contested citations, eight concern the risk of fire posed by motor oil or hydraulic oil accumulations on engines and other parts of mobile equipment.[1] As discussed below, determining whether the Secretary has met his burden of demonstrating by a preponderance of the evidence that the cited accumulations create a risk of fire requires: evaluating the potential, if any, for exposure of motor and hydraulic oil deposits to flashpoint temperatures and their resultant vaporization; and evaluating the potential for atomization of hydraulic oil occurring as a result of a defect in a pressurized hydraulic system. The remaining three contested citations concern maintenance defects on one bulldozer and two front-end loaders.

[1] As discussed herein, the cited oil accumulations violate section 77.1104 of the Secretary's mandatory standards if they are located "where they can create a fire hazard." 30 C.F.R. § 77.1104.

The Secretary originally proposed a total civil penalty of $101,729.00 in satisfaction of the eighteen citations. A hearing was held on February 5 and February 6, 2014, in South Charleston, West Virginia. The parties' briefs have been considered in the disposition of this matter.

At the hearing, the parties advised that seven of the eighteen citations, for which the Secretary initially proposed a total civil penalty of $20,248.00, had settled. The settlement terms included reducing the total civil penalty for these citations to $14,579.00 based on Justice's agreement to pay the Secretary's proposed penalty in full for six citations: Citation Nos. 8131452, 8131457, 8131458, 8137017, 8137019, and 8137027. Tr. 10-11.[2] For remaining Citation No. 8131460, the Secretary originally proposed an $8,893.00 penalty. The parties advised that they agreed to a reduced penalty of $3,224.00 in satisfaction of this citation. The record was left open for a written submission of the specific settlement terms, which was filed on February 12, 2014. The written settlement motion reflects that the reduction in penalty for Citation No. 8131460 is based on the uncertainties of litigation. The agreed-upon reduction in civil penalties for this citation, when viewed in light of the entirety of the settlement terms, is not of significant magnitude to render the proffered settlement agreement unreasonable. Consequently, **the parties' settlement agreement reducing the total civil penalty for these seven citations to $14,579.00 shall be approved** as consistent with the penalty provisions of section 110(i) of the Act.

The Secretary seeks to impose a penalty of $81,481.00 for the eleven citations that remain at issue. All of these citations are designated as significant and substantial ("S&S").[3] If the Secretary prevails in establishing the fact of the violation in any of these violations, the parties have stipulated that the cited conditions affected one person, were attributable to moderate negligence, and that these conditions will contribute to at least "lost workday or restricted duty" injuries. Tr. 15-16.

I. Background

The Red Fox Surface Mine is a highwall surface coal mine located in McDowell County, West Virginia. It is operated by Justice Energy Company, Inc., a subsidiary of Mechel Bluestone. Tr.2 91. Highwall drills, front-end loaders, and bulldozers, the pieces of equipment at issue, are used to remove overburden and extract coal from coal seams. Tr. 206-09. The Mine Safety and Health Administration ("MSHA") inspects the Red Fox Surface Mine twice each year. Tr.2 31. The conditions cited in this matter were observed during the period September 8 through September 16, 2011.

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[2] As used herein, citation "Tr." refers to the February 5, 2014, hearing transcript. Citation "Tr.2" refers to the February 6, 2014, hearing transcript.

[3] Generally speaking, a violation is S&S if it is reasonably likely that a hazard contributed to by the violation will result in an accident causing serious injury. *Cement Division, National Gypsum*, 3 FMSHRC 822, 825 (Apr. 1981).

II. Section 77.1104

Four of the eleven contested citations concern deposits of Chevron RPM Heavy Duty Motor Oil ("motor oil") on engine components of mobile equipment. Similarly, four other contested citations concern Chevron Tractor Hydraulic Fluid ("hydraulic oil") deposits on various components of mobile equipment. All eight citations allege a violation of section 77.1104 of the Secretary's mandatory safety standards. Section 77.1104 provides:

> Combustible materials, grease, lubricants, paints, or flammable liquids shall not be allowed to accumulate *where they can create a fire hazard.*

30 C.F.R. § 77.1104 (emphasis added).

III. Flashpoint, Evaporation, and Auto Ignition Temperature

In order to determine whether the cited motor oil and hydraulic oil accumulations create a fire hazard, it is necessary to distinguish the principles of flashpoint and auto ignition temperatures. Simply put, the flashpoint is the minimum temperature required to cause heated liquids, such as motor and hydraulic oils, to emit an ignitable vapor.[4] Oil accumulations on hot engine parts that do not vaporize as a result of flashpoint exposure can dissipate into the atmosphere through the process of evaporation. Tr.2 at 111. The evaporation process does not produce vapors of sufficient concentration to be ignitable. Tr.2 at 112.

In contrast, the auto ignition temperature of a material is the temperature at which that material in solid or liquid form, rather than the vapor it emits, combusts. Tr.2 97, 116. The auto ignition temperature required for combustion of liquid oil is significantly higher than the flashpoint temperature required to create combustible vapors. Tr. 81-82; *see* Gov. Ex. 12. As discussed below, the principle of auto ignition is not material to the facts at issue as there is no evidence of exposure to temperatures sufficient to create auto ignition.

[4] The Secretary's regulations define flashpoint as "the minimum temperature at which sufficient vapor is released by a liquid or solid to form a flammable vapor-air mixture at atmospheric pressure." 30 C.F.R. § 77.2(r). All products used at MSHA-regulated mines must have a Material Safety Data Sheet ("MSDS"), which defines that material's flashpoint and auto ignition temperature. To identify a material's flashpoint, as reflected on its MSDS, the material being tested is placed in a cup with an open flame at its mouth. Tr. 79. The material is then heated, causing it to emit vapors. *Id.* The flashpoint is identified as the temperature at which the flame ignites the vapors in the cup. *Id.*

IV. Motor Oil Citations

a. Summary of Citations

i. Citation No. 8137018

Upon inspection of a John Deere 844J front-end loader, Inspector Michael Carter issued 104(a) Citation No. 8137018 on September 14, 2011, alleging a violation of 30 C.F.R. § 77.1104. Citation No. 8137018 states:

> Combustible material, [motor] oil and coal fines, have accumulated in the engine compartment and on the engine of the John Deere 844J front end loader. This condition poses a fire hazard on this machine.

Gov. Ex. 16. The Secretary has designated the cited conditions as S&S, asserting that they could "reasonably likely" result in the "lost work days or restricted duty" of the front-end loader operator. *Id.* The conditions were attributable to "moderate" negligence. *Id.* Inspector Carter testified that he could not identify the source of the motor oil leak and that he did not take any depth or temperature measurements. Tr.2 81. Carter further testified that coal fines, identifiable as a shiny black powder, were mixed with the accumulated motor oil. Tr. 117. The citation was abated on September 22, 2011, after Carter determined that the equipment had been washed, the cited combustible material removed, and "the leaks fixed." Gov. Ex. 16. The Secretary seeks to impose a civil penalty of $5,503.00 for Citation No. 8137018. Gov. Ex. 1.

ii. Citation No. 8131450

Upon inspection of a Caterpillar 992 front-end loader, Inspector Jeffrey Presley issued 104(a) Citation No. 8131450 on September 8, 2011, alleging a violation of 30 C.F.R. § 77.1104. Citation No. 8131450 states:

> Combustible materials in the form of engine oil have been allowed to accumulate on the side of the hot running motor of the 992 Cat Front End Loader. This loader is run three shifts per day up to seven days per week and runs very hot.

Gov. Ex. 3. The Secretary has designated the cited conditions as S&S, asserting that they could "reasonably likely" result in the "lost work days or restricted duty" of the front-end loader operator. *Id.* The conditions were attributable to a "moderate" degree of negligence. *Id.* Presley testified that he could not identify the source of the leaking motor oil. Tr. 145. The citation was abated on September 14, 2011, after Presley determined the equipment had been washed and the cited combustible material removed. Gov. Ex. 3. The Secretary seeks to impose a civil penalty of $7,578.00 for Citation No. 8131450. Gov. Ex. 1.

iii. Citation No. 8131451

Upon inspection of a second 844J John Deere front-end loader, Inspector Presley issued 104(a) Citation No. 8131451 on September 8, 2011, alleging a violation of 30 C.F.R. § 77.1104. Citation No. 8131451 states:

> Combustible materials in the form of engine oil have been allowed to accumulate on the side of the hot running motor of the 844J John Deere Front End Loader. This loader is run three shifts per day up to seven days per week and runs very hot.

Gov. Ex. 4. The Secretary has designated the cited conditions as S&S, asserting that they could "reasonably likely" result in the "lost work days or restricted duty" of the front-end loader operator. *Id.* The conditions were attributable to a "moderate" degree of negligence. *Id.* Presley identified that coal fines were mixed with the accumulated motor oil. Tr. 146. According to Presley's testimony, the likely source of this motor oil leak was "a seal at the top of the motor." Tr. 147; Gov. Ex. 2, at 3. The citation was abated on September 9, 2011, after Presley determined that the equipment had been washed and the cited combustible material removed. Gov. Ex. 4. The record does not reflect that a motor seal was replaced to abate the citation. *Id.* The Secretary seeks to impose a civil penalty of $7,578.00 for Citation No. 8131451. Gov. Ex. 1.

iv. Citation No. 8131454

Upon inspection of CO No. 794 980H front-end loader, Inspector Presley issued 104(a) Citation No. 8131454 on September 9, 2011, alleging a violation of 30 C.F.R. § 77.1104. Citation No. 8131454 states:

> Combustible materials in the form of engine oil have been allowed to accumulate in and around the hot running motor of the CO#794 980H Front End Loader.

Gov. Ex. 7. The Secretary has designated the cited conditions as S&S, asserting that they could "reasonably likely" result in the "lost work days or restricted duty" of the front-end loader operator. *Id.* The conditions were attributable to a "moderate" degree of negligence. *Id.* Presley identified that coal fines and grease were mixed with the accumulated motor oil. Tr. 151; Gov. Ex. 2, at 7. The citation was abated on September 24, 2011, after Presley determined that the equipment had been washed and the cited combustible material removed. Gov. Ex. 7. The Secretary seeks to impose a civil penalty of $7,578.00 for Citation No. 8131454. Gov. Ex. 1.

b. Fact of the Violations

The above motor oil Citation Nos. 8131450, 8131451, 8131454, and 8137018, raise similar questions concerning the combustibility and ignition properties of motor oil. As such, whether the cited accumulations constitute violations of section 77.1104 will be addressed collectively.[5]

As a general proposition, the Secretary has the burden of proving each element of a citation by the preponderance of the evidence, based on direct evidence or adequate circumstantial evidence. *See Garden Creek Pocahontas Co.*, 11 FMSHRC 2148, 2152-53 (Nov. 1989) (citations omitted). The Commission has noted that the burden of showing something by a preponderance of the evidence standard requires the trier of fact to believe that the existence of a fact is more probable than its nonexistence. *Rag Cumberland Resources Corp.*, 22 FMSHRC 1066, 1070 (Sept. 2000) (citations omitted).

As noted by Judge Manning:

> The [Mine Act] imposes no general requirement that a violation of MSHA regulations be found to create a safety hazard in order for a valid citation to issue. If conditions existed which violated the regulations, citations [are] proper.

Essroc Cement Corp., 33 FMSHRC 459, 465 (Feb. 2011) (ALJ) (citing *Allied Products, Inc.*, 666 F.2d 890, 892-93 (5th Cir. 1982)). Hence, in satisfying his burden of proof, the Secretary need not establish that a violation creates a safety hazard, unless the cited safety standard explicitly requires such a showing.

In this regard, a violation of section 77.1104 requires a showing that the subject accumulations are located where they create a risk of fire.[6] Thus, to establish a violation of section 77.1104, the Secretary must not only demonstrate (1) the presence of combustible material, and that (2) the combustible material was allowed to accumulate, but he must also show that (3) the accumulations *are located* in an area where they can create a fire hazard. The Secretary has demonstrated elements (1) and (2) in that the subject motor oil deposits were allowed to accumulate and that the deposits are combustible. The remaining criterion requires the Secretary to demonstrate the presence of a fire hazard, *i.e.*, the potential for ignition. Whether a fire hazard exists depends on the location of the cited accumulations. *See, e.g., Id.* (holding that accumulations of hydraulic oil located in containers used to catch dripping oil from

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[5] Both Justice and the Secretary addressed these citations collectively in their respective post-hearing briefs.

[6] By way of illustration, comparison of the evidentiary requirements for demonstrating violations of section 75.400 and 77.1104 is instructive. While evidence of potential ignition sources is a factor in determining the issue of S&S, a showing of prohibited combustible coal dust accumulations, alone, is sufficient to demonstrate violation of section 75.400. In contrast, combustible accumulations, alone, do not constitute a violation of section 77.1104 unless the Secretary can demonstrate that such accumulations "can create a fire hazard."

a hydraulically-operated gate system, absent proximity to sources of heat, did not create a fire hazard).

The evidence does not reflect, and the Secretary does not contend, that the cited equipment was capable of producing sufficient temperatures to cause the auto ignition of the subject accumulations. Consequently, evaluation of the potential fire hazard, if any, as required for a violation of section 77.1104, will be limited to an analysis of whether the cited accumulations could be exposed to temperatures reaching or exceeding their flashpoint. The MSDS for the motor oil in question identifies the flashpoint as 399 to 446 degrees Fahrenheit. Resp. Ex. 2.[7]

As noted, the dispositive question is whether the subject accumulations are located where they are exposed to sufficient heat to create a risk of fire. The Secretary has failed to present any meaningful direct evidence that the operating temperatures of the engine components in proximity to the cited accumulations could reasonably approach 399 degrees Fahrenheit, the temperature necessary to cause the motor oil to emit combustible vapors.[8] Tr. 127, 162. Rather, the Secretary relies on supposition based simply on the fact that operation of the cited engines produces heat, instead of empirical evidence, for the proposition that internal combustion engines could produce motor oil flashpoint temperatures. For example, Inspector Presley testified:

> Q: Okay. What ignition source can you identify in Citation No. ... 450? What ignition sources did you identify — or hot surfaces that were in contact with the material?
>
> A: In 450? The motor, exhaust, and turbo.
>
> Q: Okay. Are you saying that this accumulation was in contact with the turbo?
>
> A: I'm saying it was in close enough proximity. It could have.
>
> * * *
>
> Q: But there is nothing in your notes about the turbocharger?
>
> A: No.

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[7] The auto ignition temperature of motor oil is considerably higher than its flashpoint. The auto ignition temperature for motor oil is not provided in the MSDS. Tr. 81-82; *see* Gov. Ex. 12.

[8] Inspector Cater testified that he did not take any temperature measurements because he did not have a heat gun and because, in some instances, the subject equipment had not been operated "in quite some time." Tr. 88.

Q: Okay. So what was the engine temperature of the side of the hot running engine that you mentioned in the violation?

A: I couldn't tell you. Hot enough. I couldn't touch it.[9]

Tr. 263-65.

Assuming that it is difficult for MSHA inspectors to obtain actual engine component temperature measurements, the Commission has noted that, where direct evidence is not readily available, the Secretary may establish a violation by inference. *Garden Creek Pocahontas Co.*, 11 FMSHRC at 2153. However, any such inference "must be inherently reasonable and there must be a rational connection between the evidentiary facts and the ultimate fact inferred." *Id.*

Motor oil deposits on engine components are not uncommon and may reoccur. The Secretary has conceded as much by approving the cleaning and removal of the deposits as adequate abatement without requiring any repair to remedy the source of the deposits to ensure that such deposits do not reoccur.[10] *See* Gov. Exs. 3, 4, 7, and 16. Thus, in the absence of evidence of potential exposure to relevant flashpoint temperature, the Secretary's general assertion that motor oil deposits on hot engine components would be a fire hazard rendering use of such mobile equipment inherently dangerous is illogical.[11]

In the final analysis, the Secretary's general reliance on the heat produced by an internal combustion engine, rather than on evidence based on actual measurements of temperature ranges capable of producing combustible motor oil vapor, lacks the requisite direct, or adequate circumstantial, evidence necessary to demonstrate that the cited accumulations create a fire hazard. Consequently, the four motor oil accumulation citations shall be vacated.

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[9] Inspector Presley also alluded to potential ignition sources caused by the arcing of defective electrical components. Tr. 265. However, in the absence of the requisite vaporization caused by temperatures meeting or exceeding the flashpoint, the cited motor oil accumulations are not sources of fuel for an ignition by an electrical arc or spark.

[10] Although Inspector Carter's testimony was somewhat equivocal, a fair reading of his testimony reflects that the motor oil citations were abated by simply pressure washing the cited engine components. *See* Tr. 167; Tr.2 84.

[11] Judge Tureck has expressed a similar opinion: "Apparently the Secretary wants me to accept as a matter of faith the totally illogical contention that a truck's engine oil will catch fire at the temperature at which a truck's engine operates." *Justice Energy Co., Inc.*, 35 FMSHRC 1590, 1594 (June 2013) (ALJ).

While I have concluded that the Secretary has failed to demonstrate a fire hazard, I am cognizant that motor oil is supposed to be in, rather than on, an engine. Dirty engines may constitute a violation of section 77.404(a) of the Secretary's regulations that requires that mobile equipment to be properly maintained.[12] However, this issue with respect to these four citations is not presently before me. **Accordingly, Citation Nos. 8131450, 8131451, 8131454, and 8137018 shall be vacated.**

V. Hydraulic Oil Citations

a. Atomization Risk of Hydraulic Oil

As a general proposition, in the absence of auto ignition temperatures, the risk of fire posed by hydraulic oil is created by vaporization due to exposure to flashpoint temperatures or atomization due to defects in pressurized hydraulic oil systems. A fire hazard is created when vaporized or atomized hydraulic oil comes into contact with extremely hot engine surfaces or other sources of ignition.[13] As previously discussed, the motor oil citations have been vacated because, although such accumulations may evaporate, the evidence does not reflect the potential presence of flashpoint temperatures sufficient to create vaporization of motor oil deposits. *See supra,* at 3. So too, with the exception of Citation No. 8137016 concerning the proximity of accumulations to the extremely hot temperatures of a turbocharger, the evidence does not reflect that the subject hydraulic oils were exposed to flashpoint temperatures sufficient to create vaporization of hydraulic oil deposits.

However, unlike motor oil, normal hydraulic oil usage relies on properly functioning pressurized lines, equipped with fittings and gaskets that can withstand such pressurization. Gov. Ex. 12. When such lines, components, and gaskets fail, it is reasonably likely that the

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[12] Improperly maintained equipment can contribute to a variety of hazards. For example, motor oil deposits may contribute to the seizing of an engine causing a loss of control. While improper maintenance may constitute a violation of section 77.404(a), it does not necessarily create a fire hazard under section 77.1104. For example, the best practices in MSHA's safety alerts require removal of accumulations of motor oil and grease using solvents or degreasers formulated to clean equipment. *See* Gov. Ex. 21, at 7. However, it is only "hazardous fluid leakage," such as that caused by the failure of hydraulic systems, which requires the immediate removal of equipment from service. *Id.* at 5.

[13] At the hearing, the Secretary proffered an MHSA investigative report of a fatal bulldozer fire accident that occurred on October 13, 2000. Gov. Ex. 21, at 10. The accident occurred when the bulldozer suddenly burst into flames shortly after misting was observed surrounding the cab of the machine. *Id.* at 12. MSHA concluded the cause of the accident was leaking oil that had been ignited by hot engine components. *Id.* at 15. The source of the leak could not be conclusively determined due to the extensive damage caused by the fire. *Id.* However, MSHA determined that the hydraulic hoses that controlled the left lift cylinder and an improper O-ring for the right lift cylinder were damaged. *Id.* The photographs in Gov. Ex. 21 of a rock truck engulfed in flames are unrelated to the October 13, 2000, accident. *Id.* at 2-3. The record was left open for the Secretary to provide relevant documents regarding the cause of that rock truck fire. Tr.2 182. The Secretary failed to do so.

released pressurized hydraulic oil may be atomized, and sprayed or misted onto hot engine surfaces, thus posing a serious risk of ignition and resultant fire. *Id.*

The fire hazard associated with hydraulic oil leaks is succinctly explained in an Occupational Safety & Health Administration Safety Hazard Information Bulletin on Hydraulic Systems Modification:

> Petroleum based hydraulic fluids are widely used. Hydraulic oil becomes hot during operations. A heated petroleum based hydraulic fluid presents a considerable fire hazard, particularly in those processes where ignition sources are usually present. A typical petroleum based hydraulic fluid has a flash point range from 300 to 600 degrees Fahrenheit and an auto ignition temperature of 500 to 750 degrees Fahrenheit. However, when hydraulic fluid is accidentally discharged under high pressure an easily ignited fine oil mist is sprayed over the surrounding area. When the mist reaches an ignition source, the result can be a torch-like ball of fire. If the mist is confined, a violent explosion can occur.

Id.

The fire hazard presented by pressurized hydraulic fluids was addressed in the Analysis of Mobile Equipment Fires, authored by the National Institute for Occupational Safety and Health ("NIOSH"). Gov. Ex. 21, at 17. In this regard NIOSH noted that 55% of all mobile equipment fires at surface coal mines during the period of 1990 to 1999 "were caused by pressurized hydraulic fluid/fuel sprayed onto equipment hot surfaces due to ruptured lines and failed fittings and gaskets." *Id.* at 25. NIOSH further noted that such failures are more likely when equipment is utilized in excess of 5,000 operating hours. *Id.* In addition to hot engine components, NIOSH noted other ignition sources, such as flame cutting/welding and electrical short circuit arcing. *Id.* at 31.

b. Citation Nos. 8131456, 8137025, and 8137026

Citation Nos. 8131456, 8137025, and 8137026 concern similar material facts in that they all involve the pooling or depositing of hydraulic oil on engine components, presumably caused by defects in pressurized hydraulic systems. However, in all three citations, there is no evidence that the cited deposits were on, or in close proximity to, hot surfaces.[14] Consequently, these three citations will be addressed collectively with respect to the facts of the violations and S&S designations.

[14] The subject hydraulic oil accumulations in Citation No. 8137016 will be addressed separately because they were in close proximity to extreme temperatures caused by a turbocharger and exhaust system.

Citation No. 8131456

Upon inspection of a Caterpillar D11R bulldozer on September 9, 2011, Inspector Presley issued 104(a) Citation No. 8131456 alleging a violation of 30 C.F.R. § 77.1104. Citation No. 8131456 states:

> Combustible materials in the form of hydraulic oil have been allowed to accumulate all over the inside of the machine under the operators (sic) compartment. The machine is in use and runs very hot.

Gov. Ex. 9. The Secretary has designated the cited condition as S&S, asserting that it could "reasonably likely" result in the "lost work days or restricted duty" of the bulldozer operator. *Id.* The condition was attributable to a "moderate" degree of negligence. *Id.* Presley described the accumulated hydraulic oil as "pooled" in the belly pan — a space that could be measured in square yardage. Tr. 170; 283. Presley could not identify the source of the leak, but did identify the dozer's transmission and electrical components as potential sources of heat. Tr. 171. The condition was abated on September 21, 2011, after the dozer had been washed and cleaned, thus removing the hydraulic oil accumulations. Gov. Ex. 9. The Secretary seeks to impose a civil penalty of $7,578.00 for Citation No. 8131456. Gov. Ex. 1.

Citation No. 8137025

Upon inspection of the CO # 841 highwall drill on September 16, 2011, Inspector Carter issued 104(a) Citation No. 8137025 alleging a violation of 30 C.F.R. § 77.1104. The citation states:

> The CO #841 drill has an accumulation of combustible material, hydraulic oil, on the frame of the machine, hydraulic hoses, and the bottom of the drill mast. This condition poses a fire hazard on this machine.

Gov. Ex. 17. The Secretary has designated the cited accumulations as S&S, asserting that they could "reasonably likely" result in the "lost work days or restricted duty" of the drill operator. *Id.* The accumulations were attributable to a "moderate" degree of negligence. *Id.* The citation was abated on September 16, 2011, after the drill had been washed and cleaned, thus removing the hydraulic oil accumulations. Gov. Ex. 17. The Secretary seeks to impose a civil penalty of $4,329.00 for Citation No. 8137025. Gov. Ex. 1.

Citation No. 8137026

Upon inspection of the CO # 823 highwall drill on September 16, 2011, Inspector Carter issued 104(a) Citation No. 8137026 alleging a violation of 30 C.F.R. § 77.1104. The citation states:

> The CO #823 drill has an accumulation of combustible material, hydraulic oil, on the frame of the machine, hydraulic hoses, and the drill mast. This accumulation is leaking from excessive oil leaks. This condition poses a fire hazard on this machine.

Gov. Ex. 18. The Secretary has designated the cited accumulations as S&S, asserting that they could "reasonably likely" result in the "lost work days or restricted duty" of the drill operator. *Id.* The accumulations were attributable to a "moderate" degree of negligence. *Id.* The condition was abated on September 16, 2011, after the drill had been washed and cleaned, thus removing the hydraulic oil accumulations. Gov. Ex. 18. The Secretary seeks to impose a civil penalty of $4,329.00 for Citation No. 8137025. Gov. Ex. 1.

i. Fact of the Violations

As previously discussed, in circumstances where presenting direct evidence is problematic, the Secretary may establish a violation by an inference that is "inherently reasonable" and presents a "rational connection between the evidentiary facts and the ultimate fact inferred." *Garden Creek*, 11 FMSHRC at 2153. Here, the Secretary can demonstrate the potential for atomization through circumstantial evidence as it is inherently reasonable to assume that an accumulation of hydraulic oil occurred as a result of a failure of a pressurized hydraulic system, resulting in a hydraulic oil leak. As discussed, a failure of high pressure hydraulic oil system creates a risk of atomization, and thus an increased risk of fire.

All three citations describe accumulations of hydraulic oil. In Citation No. 8131456, Inspector Presley identified a "pool" of hydraulic oil that had accumulated in the belly pan of the Caterpillar bulldozer. Tr. 170; 283. In Citation Nos. 8137025 and 8137026, Inspector Carter identified accumulations of hydraulic oil on drill frames, hydraulic hoses, and drill masts. Gov. Exs. 17, 18.

As the cited accumulations reflect the potential for atomization, which is a contributing factor in ignition and fire on mobile equipment, the Secretary has satisfied his burden of demonstrating the fact of the violations of section 77.1104 addressed in these three citations. The focus shifts to whether the cited violations were properly designated as S&S because they created a reasonable likelihood of fire.

ii. S&S

As a general proposition, a violation is properly designated as S&S in nature if, based on the particular facts surrounding that violation, there exists a reasonable likelihood that the hazard contributed to by the violation will result in an injury or an illness of a reasonably serious nature. *Cement Division, National Gypsum*, 3 FMSHRC 822, 825 (April 1981). In *Mathies Coal Co.*, 6 FMSHRC 1 (Jan. 1984), the Commission explained:

> In order to establish that a violation of a mandatory safety standard is [S&S] under *National Gypsum*, the Secretary of Labor must prove:

> (1) the underlying violation of a mandatory safety standard; (2) a discrete safety hazard—that is, a measure of danger to safety—contributed to by the violation; (3) a reasonable likelihood that the hazard contributed to [by the violation] will result in an injury; and (4) a reasonable likelihood that the injury in question will be of a reasonably serious nature.

Id. at 3-4; *see also Austin Powder Inc. v. Sec'y of Labor*, 861 F.2d 99, 103-04 (5th Cir. 1988), *aff'g* 9 FMSHRC 2015, 2021 (Dec. 1987) (approving *Mathies* criteria). With respect to the third element of *Mathies*, an S&S finding requires a determination that the violation contributes significantly and substantially to the cause and effect of a hazard. *U.S. Steel Mining Co., Inc.*, 6 FMSHRC 1866, 1868 (Aug. 1984). Resolution of whether a particular violation of a mandatory standard is S&S in nature must be made assuming continued normal mining operations. *U.S. Steel Mining Co.*, 1 FMSHRC 1125, 1130 (Aug. 1985). Thus, consideration must be given to both the time frame that a violative condition existed prior to the issuance of a citation, and the time that it would have existed if normal mining operations had continued. *Bellefonte Lime Co.*, 20 FMSHRC 1250 (Nov. 1998); *Halfway, Inc.*, 8 FMSHRC 8, 12 (Jan. 1986). In the final analysis, the essence of an S&S violation is whether it is reasonably likely that the hazard contributed to by the violation will result in an event in which there are serious or fatal injuries. *Bellefonte*, 20 FMSHRC at 1254-55.

Here, it is apparent that the first, second, and fourth elements of *Mathies* have been demonstrated. Namely, the facts support a violation of section 77.1104 that requires a showing of an accumulation of combustible materials that pose a risk of fire, regardless of its likelihood. In the event of fire, serious injuries, if not fatalities, will occur. In fact, the parties have agreed that there is a potential for an injury of a reasonably serious nature by their stipulation that the cited conditions may result in at least "lost workdays or restricted duty." Tr. 15-16. However, the dispositive question under the third element of *Mathies* is whether the Secretary has demonstrated that it is reasonably likely that the cited violations will contribute to fires on mobile equipment.

With regard to the accumulation of hydraulic oil in the belly pan of the Caterpillar dozer, cited in Citation No. 8131456, Inspector Presley's general reliance on heat from the bulldozer's transmission and electrical components as the likely sources of flashpoint heat or ignition is unavailing. *See* Tr. 171. Presley did not observe any defects with these electrical components, nor did he take any heat measurements of the transmission. Tr. 304-05. Moreover, there is no evidence of any other sources of heat in close proximity to the cited accumulation. *Id.* Significantly, Gilbert Witt, Safety Director at the Red Fox Surface Mine, testified without contradiction that the temperature of the cited hydraulic oil in the belly pan would have been the same as the ambient temperature. [15] Tr.2 140.

[15] The potential for atomization from faulty hydraulic systems is a sufficient hazard to support the fact of the violation with respect to the potential for a fire. However, in the absence of ignition sources, it is insufficient to support an S&S designation, which requires the showing of a likelihood of a fire.

Additionally, Presley did not identify, nor did he require Justice to determine, the source of any leak that could result in atomization. Tr. 170, 281. Significantly, Presley was more concerned about the quantity and fact of the accumulation rather than possible sources of heat or atomization:

Q: So the problem is not that there is normal wear and tear on the engine, it's, again, the amount of accumulations that happened in terms of these four citations that you testified to? That's where the problem begins?

A: The amount of accumulations of the hydraulic oil—

Q: Yes.

A: —in and around all of the hydraulic components? Yes.

Tr. 174-75.

The extent of an accumulation alone, absent evidence of its exposure to extreme heat or ignition sources, is insufficient to render the fire hazard addressed in section 77.1104 reasonably likely to occur. In this regard, the Secretary has failed to demonstrate the requisite proximity of sources of heat to the belly pan of the dozer, or atomization at the source of the leak, necessary to present a reasonable likelihood of fire.

Finally, Presley's purported concern regarding the fire hazard posed by the belly pan accumulation is belied by his abatement of Citation No. 8131456, which required only that the accumulation be cleaned without identifying the source of the leak to prevent the leak's reoccurrence. Tr. 167; Gov Ex. 9. Given the Secretary's failure to demonstrate that a fire on the cited bulldozer was reasonably likely to occur, **the S&S designation in Citation No. 8131456 shall be deleted.**

Regarding Citation Nos. 8137025 and 8137026, Inspector Carter testified that the locations of the hydraulic oil accumulations were limited to the drill frame, hydraulic hoses, and the drill mast, rather than on the drill engine or any other hot engine components. Tr.2 87-88. As Carter testified, these locations are free from "hot surfaces":

Q. Now, this oil that accumulated here [in Citation No. 8137025], it's just on the frame and hoses; is that correct?

A. Yes, sir.

Q. Nothing on the mast or the engine?

A. The bottom of the drill mast.

* * *

Q. And [in Citation No. 8137026,], where was this hydraulic oil?

A. On the frame, hydraulic hoses, and the drill mast.

Q. Okay. Where there any hot surfaces in those areas?

A. No.

Tr.2 87-88.

Additionally, Carter did not identify, nor did he require Justice to identify, the sources of any leaks that could result in atomization. Similar to the abatement required by Presley for the belly pan accumulation in Citation No. 8131456, Carter's abatement of Citation Nos. 8137025 and 8137026 only required removal of the accumulations without identifying the sources of the leaks to prevent their reoccurrence. Tr. 108-10, 167; Gov. Exs. 17, 18. Given the Secretary's failure to demonstrate that fires were reasonably likely to occur, as the accumulations were located primarily on drill masts and frames rather than in proximity to sources of heat or ignition, **the S&S designations in Citation Nos. 8137025 and 8137026 shall be deleted.** *See supra*, n. 6.

iii. Civil Penalty

The Commission outlined the parameters of its responsibility for assessing civil penalties in *Douglas R. Rushford Trucking*, 22 FMSHRC 598 (May 2000). The Commission stated:

> The principles governing the Commission's authority to assess civil penalties de novo for violations of the Mine Act are well established. Section 110(i) of the Mine Act delegates to the Commission "authority to assess all civil penalties provided in [the] Act." 30 U.S.C. § 820(i). The Act delegates the duty of proposing penalties to the Secretary. 30 U.S.C. § § 815(a) and 820(a). Thus, when an operator notifies the Secretary that it intends to challenge a penalty, the Secretary petitions the Commission to assess the penalty. 29 C.F.R. §§ 2700.28 and 2700.44. The Act requires that, "[i]n assessing civil monetary penalties, the Commission [ALJ] shall consider" six statutory penalty criteria:
>
> > [1] the operator's history of previous violations, [2] the appropriateness of such penalty to the size of the business of the operator charged, [3] whether the operator was negligent, [4] the effect of the operator's ability to continue in business, [5] the gravity of the violations, and [6] the demonstrated good faith of the person charged in attempting to achieve rapid compliance after notification of a violation.

22 FMSHRC at 600 (*citing* 30 U.S.C. § 820(i)). The Commission has noted that the de novo consideration of the appropriate civil penalties to be assessed does not require "that equal weight must be assigned to each of the penalty assessment criteria." *Thunder Basin Coal Co.*, 19 FMSHRC 1495, 1503 (Sept. 1997).

In keeping with this statutory requirement, the Commission has held that "findings of fact on the statutory penalty criteria must be made" by its judges. *Sellersburg Stone Co.*, 5 FMSHRC 287, 292 (Mar. 1983). Once findings on the statutory criteria have been made, a judge's penalty assessment for a particular violation is an exercise of discretion, which is bounded by proper consideration for the statutory criteria and the deterrent purposes of the Act. *Id.* at 294; *Cantera Green*, 22 FMSHRC 616, 620 (May 2000).

The Secretary proposed initial penalties of $7,578.00 for Citation No. 8131456 and $4,326.00 each for Citation Nos. 8137025 and 8137026. The Secretary has submitted documentation of Justice's history of violations for the two-year period preceding the issuance of the subject citations, from September 2009 to September 2011. The Secretary does not contend that Justice's violation history is an aggravating factor. It has neither been contended nor shown that the proposed penalties are disproportionate to the size of the business or that they would impede Justice's ability to remain in business. Furthermore, Justice apparently demonstrated good faith in abating the citations.

Given the deletion of the S&S designations, reflecting that the gravity of the cited violations was not as great as originally alleged by the Secretary, **the penalties assessed for Citation Nos. 8137025 and 8137026 shall be reduced to $2,500.00 for each citation.** Weighing the reduction in gravity with respect to the deletion of the S&S designation in Citation No. 8131456 against the obviousness and extensive nature of the cited belly pan accumulations, **the penalty for Citation No. 8131456 shall be reduced to $3,500.00.**

c. Citation No. 8137016

Upon inspection of the CO # 834 highwall drill on September 14, 2011, Inspector Carter issued 104(a) Citation No. 8137016 alleging a violation of 30 C.F.R. § 77.1104. The citation states:

> Combustible material, hydraulic oil, has accumulated in dangerous amounts on the motor (including turbo), drill mast, and frame of the CO # 834 Drill. This accumulation is dripping from excessive oil leaks on the feed jacks located on the mast. This condition poses a fire hazard on this machine.

Gov. Ex. 14.

The Secretary has designated the cited conditions as S&S, asserting that they could "reasonably likely" result in the "lost work days or restricted duty" of the drill operator. *Id.* The conditions were attributable to a "moderate" degree of negligence. *Id.* This highwall drill is used to drill holes in the mine highwall into which explosives are inserted to remove overburden. Tr. 25. Carter identified the drill mast hydraulic jacks as the sources of the oil leak. Tr. 27. When the drill mast was in a horizontal position, as was observed by Carter, the leaking hydraulic oil would drip directly into the drill's engine compartment. *Id.* The Secretary has provided photographic evidence of hydraulic oil that had accumulated on engine components, including part of the exhaust system. Gov. Ex. 15. The citation was abated on September 22,

2011, after Carter determined that the highwall drill was taken out of service for replacement of the leaking jacks. Gov. Ex. 14. The Secretary seeks to impose a civil penalty of $5,503.00 for Citation No. 8137016. Gov. Ex. 1.

i. Fact of the Violation

As previously discussed, the accumulation of pressurized hydraulic oils presents a significant risk of atomization that can ultimately lead to ignition and fire. Moreover, the Secretary has presented photographic evidence that the cited hydraulic oil accumulations in Citation No. 8137016 were in proximity to the drill mast, and hot engine components such as the turbocharger and exhaust. Gov. Exs. 14, 15. Consequently, the Secretary has established the fact of the violation by demonstrating that the cited accumulations present a risk of fire, through either atomization or flashpoint vaporization, as contemplated by the mandatory standard in section 77.1104.

ii. S&S

Similar to the discussion in the previous hydraulic oil citations, the first, second, and fourth elements of the *Mathies* criteria are clearly satisfied. The third *Mathies* element requires consideration of the likelihood that the cited accumulations will result in a fire. This requires a determination of whether or not sources of sufficient heat or ignition were in close proximity to the cited accumulations.

Unlike the previous three hydraulic oil citations, the Secretary has proffered photographic evidence demonstrating that the cited hydraulic oil accumulations in Citation No. 8137016 were in proximity to, or in contact with, hot drill engine components, such as the turbocharger and exhaust. *See* Gov. Ex. 15. Significantly, Justice has conceded that the turbocharger is among the hottest components of an operating engine. Tr. 70-71. Consequently, the temperature of a turbocharger can potentially approach, or exceed, the flashpoint of hydraulic oil. The photographs reflect that hydraulic oil had accumulated on the exterior of the drill's turbocharger. *See* Gov. Ex. 15. Inspector Carter testified to the hazard created by the cited accumulations:

Q: I believe in your citation you describe something about dangerous amounts. Why is this dangerous?

A: In the pictures, it's more than just ordinary leakage. It's coming from excessive leaks. Just from all the pictures show different parts of the machine, there's areas of accumulations and it adds up to be a pretty substantial amount of hydraulic oil.

Q: And you classified this as reasonably likely to cause injury. Why did you do that?

A: Because you have the ignition source of the engine — the exhaust, turbo — and the hydraulic oil itself as being a combustible material.

Tr. 48-49.

Significantly, as distinguished from the three previous hydraulic oil citations, Inspector Carter identified the sources of the leak as defective high-pressure hydraulic jacks. Tr. 27. Moreover, it is noteworthy that the abatement required the removal and replacement of the faulty hydraulic jacks (rather than mere cleaning and removal of the accumulations, as in the previously-discussed citations). *See* Tr. 106-07; Gov. Ex. 14. Carter's identification of the source of the leak and abatement requiring repair is consistent with the Secretary's assertion that, if left unabated, the cited accumulations were reasonably likely to result in a fire. Consequently, **the S&S designation in Citation No. 8137016 shall be affirmed.**

iii. Civil Penalty

Consistent with the previous discussion of the penalty criteria in section 110(i), **the Secretary's proposed penalty of $5,503.00 in satisfaction of Citation No. 8137016 shall be imposed,** given the fact that there is no basis to reduce the degree of gravity as asserted by the Secretary.

VI. Unsafe Operating Condition Citations

The remaining three disputed citations allege failures to maintain machinery in "safe operating condition" in violation of section 77.404(a). This mandatory standard provides:

> Mobile and stationary machinery and equipment shall be maintained in safe operating condition and machinery or equipment in unsafe condition shall be removed from service immediately.

30 C.F.R. § 77.404(a).

As a general proposition, the question of whether equipment in a surface or underground coal mine is unsafe is resolved on the basis of "whether a reasonably prudent person familiar with the factual circumstances surrounding the allegedly hazardous condition, including facts peculiar to the mining industry, would recognize a hazard warranting corrective action." *Ambrosia Coal & Constr. Co.*, 18 FMSHRC 1552, 1557 (Sept. 1996) (citing *Alabama By-Products Corp.*, 4 FMSHRC 2128, 2129 (Dec. 1982) (applying an identical standard in underground coal mines)). The operating condition of machinery is "not defined *solely* by its proper functional performance, but must also be related to the protection of miners' health and safety." *Ideal Cement Co.*, 12 FMSHRC 2409, 2414-15 (November 1990) (emphasis in original).

a. Citation No. 8131453

Upon inspection of a Caterpillar 980H front-end loader, Inspector Presley issued 104(a) Citation No. 8131453 on September 9, 2011, alleging a violation of 30 C.F.R. § 77.404(a). Citation No. 8131453 states:

> The Cat 980H Front End Loader is not being maintained in safe operating condition. When checked the automatic hood lift does not work and the top right boom lift jack at the pin has more than 1/8 [inch] of vertical slack that can cause the jack or pin to break. See citation #8131454.[16]

Gov. Ex. 6. The Secretary has designated the cited conditions as S&S, asserting that they could "reasonably likely" result in the "lost work days or restricted duty" of the front-end loader operator. *Id.* The conditions were attributable to a "moderate" degree of negligence. *Id.* The citation was abated on September 14, 2011, after Presley determined that the automatic hood lift was repaired and both the boom lift jack bushing and the jack pin were replaced. *Id.*; Tr.2 131. The Secretary seeks to impose a civil penalty of $11,306.00 for Citation No. 8131453. Gov. Ex. 1.

i. Fact of the Violations

1. Automatic Hood Lift

The automatic hood lift on the Cat 980H front-end loader is a mechanism that uses power from the vehicle battery to automatically lift the hood. Tr. 180. When it is in working condition, the machine operator can raise the hood while standing on the ground by engaging the lift mechanism. Tr. 179. Presley testified that when the hood lift is malfunctioning, a miner would have to "climb up on the rear of the machine" to manually jack-up the hood, exposing the miner to slip and fall hazards. Tr. 180-81.

Justice argues that the malfunctioning automatic hood lift did not affect the safe operating condition of the loader as it was a "device of convenience" that was provided with a backup manual crank system, and that the malfunctioning hood lift had no effect on the loading tasks or safe maneuvering of the loader itself. Resp. Br. at 14; Tr. 311.

The manual hood crank system is an alternative method provided by Caterpillar for opening the hood of the front-end loader when the automatic lift mechanism is inoperable. As previously noted, determining if mobile equipment is unsafe, as contemplated by section 77.404(a), is not defined solely by its proper functional performance, "*but must also be related to the protection of miners' health and safety.*" *Ideal Cement*, 12 FMSHRC at 2414-15 (emphasis added). Thus, the fact that the preferred automatic lift mechanism was inoperable is not

[16] Citation No. 8131454 has settled and is not material to the disposition of Citation No. 8131453.

dispositive. The determining question is whether the Secretary has demonstrated that use of Caterpillar's manual hood crank system exposes miners to the risk of injury.

As an initial matter, the Secretary has not presented any evidence, nor does he even assert, that Justice was maintaining the manual hood crank backup system in an unsafe condition. Rather, the Secretary argues, in essence, that the non-functioning automatic hood lift is unsafe because it exposes miners who must access the back-up system to a danger of falling that is inherent in the back-up system's design. However, the Secretary has not cited section 77.1710(g) that requires that miners wear "[s]afety belts and lines where there is a danger of falling." 30 C.F.R. § 77.1710(g). Nor has the Secretary asserted that use of the manual hood crank system violates section 77.205(a), which requires a "[s]afe means of access" to "all working places." 30 C.F.R. § 77.205(a). Having neglected to do so, the Secretary has failed to demonstrate that the inoperability of the automatic hood lift, which requires use of the backup system, constitutes an unsafe operating condition in violation of section 77.404(a), the cited mandatory standard.

2. Lift Jack Pin Slack

Citation No. 8131453 also concerns impermissible vertical slack in the Cat 980H loader's right boom lift jack pin, cited as a violation of the maintenance provisions of section 77.404(a). Affixed to the front of the Cat 980H loader is a bucket, which is controlled by two booms and hydraulic lift jacks. Resp. Br. at 19. Each hydraulic lift jack is attached to its respective boom by a hardened steel pin within a brass bushing. Tr. 184, 305; Tr.2 129.

Presley testified that he observed 1/8 inch of vertical slack in the eye of the hydraulic lift jack, causing "a hammering action" on the pin and eye of the jack. Tr. 182, 185. Presley further testified that he first observed this slack from ten to fifteen feet away before approaching the loader to visually inspect further. Tr. 312. Upon closer observation, Presley estimated the slack to be 1/8 inch based on observation alone without reliance on any objective methods of measurement, such as a micrometer. Tr. 184. Presley opined that this rather de minimis degree of slack causes a hammering action that stresses the head, pin, and eye of the jack, which could cause these parts — the pin in particular — to break. Tr. 182-85. Thus, Presley testified that these parts require maintenance if they are not "perfectly tight," or within "hundredths of an inch" of slack. Tr. 185-86. As a practical matter, the thrust of Presley's opinion was that "there should be no slack between the pin and the eye of the jack itself...." Tr. 314.

According to Safety Director Gilbert Witt, however, some slack between the pin and bushing is necessary to facilitate movement; a tight fit between the bushing and pin would restrict its intended use and hasten deterioration. Tr.2 132-33. In this regard, Justice emphasizes that Presley did not rely on any Caterpillar specifications regarding the tolerance for slack in jack pins. Resp. Br. at 27-28. Moreover, Justice contends that Presley's estimation of 1/8 inch in slack, based on observation alone, in the absence of objective methods of measurement, is unreliable. *Id.*

The question whether slack in components of mobile operating equipment constitutes an unsafe operating condition, as contemplated by section 77.404(a), is a matter of degree. *LaFarge North America*, 35 FMSHRC 3497, 3501 (Dec. 2013) (holding the amount of slack movement in a ball joint is critical to determining whether it is an unsafe condition). The evidence reflects that, given the imprecise nature of visual observation, the cited slack was between 1/16 and 1/8 inch of slack. *See* Tr. 313-14. The dispositive question is whether reasonably prudent maintenance personnel familiar with slack movement in the eye of a hydraulic lift jack used to maneuver the bucket of a front-end loader would recognize that 1/16 to 1/8 inch of slack constitutes an unsafe operating condition that requires corrective action as required by section 77.404(a). *See Ambrosia Coal*, 18 FMSHRC at 1557.

The Secretary has the burden of proving the fact of a violation by the preponderance of the evidence. Determining whether the Secretary has satisfied this burden requires weighing Inspector Presley's opinion that "there should be no slack between the pin and the eye of the jack itself" with Safety Director Witt's testimony that some slack between the pin and bushing is necessary to facilitate movement. *See* Tr. 314; Tr.2 132-33. The rub in Presley's opinion is that it is based on his purported experience, rather than any specifications provided by Caterpillar. The subjective nature of Presley's opinion is illustrated by his testimony:

Court:	Could you have cited — would you have issued the citation if the pin had 1/16 [inch] of vertical slack?
A:	Yes. There would be a safety issue there, also. It would have been a little more difficult to determine.
Court:	1/16 of an inch would be a problem?
A:	Yes, sir.
Court:	What about 1/32 of an inch?
A:	If I had got down that kind of movement, I would probably have had to mic it to justify that it actually had 1/32 inch of movement.[17]
Court:	So you're saying that it should have absolutely no movement?
A:	There should be no slack in between the pin and the eye of the jack itself that would cause shock loading.

Tr. 313-14.

[17] It is difficult to imagine how Presley could rely on visual observation alone to differentiate 1/16 inch from 1/32 inch of slack in determining whether use of a micrometer was necessary.

In this regard, Presley further testified:

Court: But your testimony is there's no wear and tear permissible with regard to any — any movement — any slack on that pin?

A: No, sir. There's — those fits on those pins and eyes of those jacks are in, like, three-hundredths of an inch. I mean, sure, you're going to have 400s, 500s, 600s.

Court: Okay. But as I say, as it deteriorates over time because of use—I mean, it's brand new — if it's a brand new machine, everything is perfect—

A: Tight fits.

Court: Everything is tight fitted and it's machine perfect.

A: Yes, sir.

Court: But what — what are you basing your conclusion on that virtually any — any separation — any slack a sixteenth of an inch or more requires maintenance? What are you basing your opinion on?

A: Experience of those jacks breaking and pins breaking. I've had them break on equipment I've owned.

Court: But I'm asking, what are you basing that opinion on? You're basing that opinion just — you're basing that opinion on your opinion?

A: Yes. On my experience.

Tr. 315-16.

An MSHA inspector's observations are entitled to deference with respect to questions of fact, such as the degree of slack that he reportedly observed. However, whether an inspector's observations support allegations of an unsafe operating condition of mobile equipment, as contemplated by section 77.404(a), is a question of law. Although an inspector's judgment that a cited condition poses a hazard is usually entitled to deference, Presley's subjective opinion, alone, that slack as de minimis as 1/16 inch, or even as little as 1/32 inch, constitutes an unsafe operating condition, is insufficient to demonstrate a violation of section 77.404(a).

In reaching this conclusion, I am cognizant of the Commission's decisions in *Harlan Cumberland Coal Co.*, 20 FMSHRC 1275, 1278 (Dec. 1998) and *Buck Creek Coal*, 52 F.3d 133, 135-36 (7th Cir. 1995), that an ALJ did not abuse his discretion in crediting the opinion of an experienced inspector. However, obviously, a Commission Judge is not required to defer to an

inspector with respect to the question of the law at issue, *i.e.* the fact of a violation. Rather, absent objective evidence of manufacturer or industry maintenance specifications demonstrating that virtually any slack movement is impermissible, I credit Witt's testimony that a slight degree of slack between the pin and bushing is necessary to facilitate movement. *Cf. Extra Energy Inc.*, 36 FMSHRC __, slip op. at 12, No. VA 2013-511 (Oct. 17, 2014) (ALJ McCarthy) (relying on objective evidence that the North American Commercial Vehicle Safety Alliance Out-of-Service Criteria supports that one inch of vertical play in a steering ball joint constitutes a hazardous condition in violation of section 56.14100(c)).

Having concluded that neither the inoperable automatic hood lift nor the approximate 1/8 inch slack in the right boom lift jack constitutes unsafe operating conditions, **Citation No. 8131453 shall be vacated.**[18]

b. Citation No. 8131459

Upon inspection of a CO No. 785 John Deere front-end loader, Inspector Presley issued 104(a) Citation No. 8131459 on September 10, 2011, alleging a violation of 30 C.F.R. § 77.404(a). Citation No. 8131459 states:

> The CO #785 John Deere front end loader is not being maintained in safe operable condition. When checked the "kick outs" on the boom and bucket don't work and both steering jacks on the jack end have 1/4 [inch] of slack in the fits. This creates shock loading on the jack and pin witch (sic) will break and cause loss of steering in the high congestion area this equipment is operated in.

Gov. Ex. 10. The Secretary has designated the cited conditions as S&S, asserting that they could "reasonably likely" result in the "lost work days or restricted duty" of the front-end loader operator. *Id.* The conditions were attributable to a "moderate" degree of negligence. *Id.* The citation was abated on September 14, 2011, after Presley determined that all cited conditions had been repaired. *Id.* The Secretary seeks to impose a civil penalty of $8,893.00 for Citation No. 8131459. Gov. Ex. 1.

[18] Resp. Ex. 4A concerns citations, unrelated to this proceeding, issued by Presley for excessive slack that were purportedly vacated. The record was left open for Justice to proffer evidence to supplement Resp. Ex. 4A regarding the opinion of a Caterpillar-certified mechanic with respect to the degree of permissible slack in a steering jack mechanism on a front-end loader that reportedly served as the basis for vacating these citations. Tr.2 182. Justice failed to do so. Nevertheless, the Secretary retains the burden of proof that, absent zero tolerance, virtually any vertical slack movement in the pin of a hydraulic lift jack constitutes an unsafe operating condition.

i. Fact of the Violation

1. Malfunctioning Kick Out

The "kick outs" on CO No. 785 John Deere front-end loader function "like a limit switch," allowing the equipment operator to set the upper and lower parameters for bucket movement. Tr. 197. Inspector Presley explained the hazard associated with a malfunctioning bucket kick out system:

> ...if [the font-end loader operator] happens to be loading material and goes over a truck to dump the material and goes to kick [the bucket] back in the lock position for it to raise up and just keeps steering toward the truck, he's going to swing the bucket through the truck.

Tr. 198.

In contrast, Safety Director Witt argues that the bucket kick out is a device of convenience. Tr.2 143. Witt testified that bucket kick outs are optional equipment. *Id.* Even when such kick out systems are installed, Witt testified that they are not always used by loader operators. *Id.* Witt opined that utilization of the kick out system may become an inconvenience when loader buckets are used to dump material into trucks of different sizes. *Id.*

I am unconvinced by Justice's assertion that bucket kick outs are simply a device of convenience that are not relied upon by front-end loader operators. While operators may manually maneuver the loader bucket, the kick out system is a safety mechanism provided by the manufacturer to prevent loss of control from overextension of the loader bucket. A loader operator may lose control of a loader bucket because of his inability to rely on an operable kick out switch to regain control. Presley testified to the hazard of an intermittently-functioning kick out switch:

> A: ... The issue is where the kick out switch works intermittently and they're used to using that kick out switch to load trucks. In the event they go to hit their kick out switch and it doesn't function, then it's not going to raise that bucket up over the height of that equipment to dump.
>
> Q: Well, then wouldn't he just use the manual control?
>
> A: Well, if it's working and not working and he's used to it working, that one time it don't (sic) work is the one time you swing into a truck.

Tr. 351-52.

When a front-end loader is equipped with a kick out switch, it is reasonable to assume that a loader operator will rely on it. Accordingly, I find the malfunctioning kick out switch to be an unsafe operating condition in violation of section 77.404(a).

2. Steering Jack Slack

As described by Inspector Presley, the John Deere front-end loader in question steers via a central pivot joint. Tr. 354-59. This front-end loader is maneuvered by extending and retracting hydraulic steering jacks that span the full length of the vehicle and are located on each side of the pivot joint. *Id.* Each hydraulic steering jack is attached to the front and rear axles by a hardened steel pin within a bushing. Tr. 362-63. Presley observed 1/4 inch of slack in the eye of each steering jack, causing "a hammering action" on the pin and eye of the jack. *Id.*; Tr. 198, 202. Presley testified that he first observed this slack from ten to fifteen feet away before approaching the loader to visually inspect further. Tr. 364. Presley believed that the hammering action he observed stressed the head, pin, and eye of the jack, which could cause these parts to break. Tr. 198, 362-63. Presley opined that the fit between these parts is to be within "hundredths of an inch" of slack, so that there is no movement visible to the naked eye. Tr. 367. If the pin, jack, or eye were to break, the jack would physically come loose from the machine, causing the loader operator to lose steering control. Tr. 199-200.

In response, Justice contends that minimal movement in the eye of the steering jack is necessary for operation of the vehicle. Moreover, Justice argues that Presley did not rely on any Caterpillar specifications regarding the tolerance for slack in hydraulic steering jacks. Resp. Br. at 27-28. Consequently, Justice asserts that Presley's estimation of 1/4 inch of slack, based on observation alone, in the absence of objective methods of measurement, is unreliable. *Id.*

Once again, the threshold between tolerable slack and slack creating an unsafe operating condition is a matter of degree. Similar to the discussion of the 1/8 inch of slack cited in Citation No. 8131453, I am unconvinced by Presley's opinion, unsupported by objective evidence such as manufacturer specifications or maintenance manuals, that de minimis movement of these types of components constitutes excessive wear that rises to the level of a hazardous condition.

While the evidence does not support that the approximate 1/4 inch slack cited by Presley is an unsafe operating condition in violation of section 77.404(a), the inoperable kick out switch preventing loss of control of the loader bucket creates an adequate hazard requiring maintenance to constitute a violation of the cited mandatory standard. *See Fox Knob Coal Co.*, 33 FMSHRC 503, 510 (Feb. 2011) (supporting that if cited conditions singly or in combination render cited equipment unsafe to operate, a violation has occurred). Accordingly, **the Secretary has demonstrated the fact of the violation cited in Citation No. 8131459.**

ii. S&S

Having identified the inoperable kick out switch as a violation of the mandatory safety standard in section 77.404(a), the focus shifts to whether the cited condition was properly designated as S&S. Here, it is apparent that the first, second, and fourth elements of *Mathies* have been demonstrated. Namely, the facts support a violation of section 77.404(a) that creates a loss of control hazard. In addition, the parties have agreed that the hazard creates the potential for a reasonably serious injury that will result in at least "lost workdays or restricted duty." Tr. 15-16. However, the dispositive question under the third element of *Mathies* is whether the

Secretary has demonstrated that it is reasonably likely that the cited violation will contribute to an accident causing injuries to an operator of the front-end loader.

Presley testified without contradiction that a malfunctioning kick out switch is intended to prevent loss of control of a loader, which could result in unintended contact with nearby equipment, such as a haulage truck. Under such circumstances, it is reasonably likely that the operator of the loader, or the operator of nearby equipment struck by a loader bucket, will sustain injuries of a reasonably serious nature. Consequently, **Citation No. 8131459 is properly designated as S&S.**

iii. Civil Penalties

The Secretary has proposed a penalty of $8,893.00 for Citation No. 8131459. As noted, the parties have stipulated that the violation is attributable to a moderate degree of negligence. Tr. 15-16. Given the Secretary's failure to support the alleged excessive slack condition as a circumstance mitigating the gravity of the citation, and consistent with the criteria in section 110(i) as previously discussed, **a civil penalty of $5,200.00 shall be imposed for Citation No. 8131459.**

c. Citation No. 8131455

Upon inspection of a Caterpillar D11R bulldozer on September 9, 2011, Inspector Presley issued 104(a) Citation No. 8131455, alleging a violation of 30 C.F.R. § 77.404(a). Citation No. 8131455 states:

> The Cat D11R dozer is not being maintained in safe operating condition. When checked there is a bolt missing out of the right rear idler cap, small idler on top on the right side is loose, the bushing for the right side tilt jack is missing allowing better than 1 [inch] of slack in the fit, both lift jacks leak off, the blade tilt does not work, and has several hydraulic leaks in the center of the machine that can affect the functions of the machine.

Gov. Ex. 8. The Secretary has designated the cited conditions as S&S, asserting that they could "reasonably likely" result in the "lost work days or restricted duty" of the bulldozer operator. *Id.* The conditions were attributable to a "moderate" degree of negligence. *Id.* The citation was abated on September 11, 2011, after Presley determined that all cited conditions had been repaired. *Id.* The Secretary seeks to impose a civil penalty of $11,306.00 for Citation No. 8131455. Gov. Ex. 1.

i. Fact of the Violations

1. Idlers

The idlers on a Cat D11R bulldozer function like pulleys or rollers upon which the bulldozer's tracks circulate. Tr. 191-92. The idlers on this bulldozer are capped to keep debris away from their internal components. Tr. 190. The caps are secured by three bolts. *Id.*

Inspector Presley observed that the cap on the large right rear idler was missing one of these three bolts. *Id.*; Tr.2 137. Additionally, one of the small right-side idlers was loose — a condition likely caused by worn out bearings. Tr. 191-92. Presley asserted that the failure of an idler could cause the bulldozer's tracks to "lock up," resulting in loss of control by the operator. Tr. 192.

Justice does dispute the loose right-side idler. With respect to the idler caps, Justice argues that the presence of an idler cap did not affect the safe operation of the bulldozer. For example, Safety Director Witt testified that there are similar machines that come from the manufacturer without upper idler caps installed. Tr.2 137-38.

The fact that idler caps may not be installed on some pieces of tracked mobile equipment is not dispositive. The uncontroverted testimony is that idler caps were installed on the cited bulldozer for the purpose of preventing debris from interfering with the internal components of the bulldozer's track system. Moreover, the cited conditions include a loose right-side idler, which can further compromise the functioning of the bulldozer's track system. I credit Presley's testimony that a compromised dozer track system constitutes an unsafe operating condition as contemplated by section 77.404(a) as it creates a potential loss of control hazard of a multi-ton bulldozer.

2. Malfunctioning Blade Tilt

The Cat D11R bulldozer in question is fitted with two hydraulic jacks that tilt the front blade forward and backward. Tr. 193. The brass bushing component of the right jack was missing, causing at least one inch of slack. *Id.* Presley was concerned that slack of this magnitude in this blade tilt jack was causing in a "hammering action" that added undue stress to the jack. *Id.* When Presley instructed the bulldozer operator to raise the blade and release the pressure on the system, the slack on the jack caused the blade to quickly fall back to the ground. Tr. 194, 340. Presley noted an additional malfunction of the blade tilt mechanism that was unrelated to the observed slack. Tr. 344. Presley opined that the combination of these defects presented a loss of control hazard that could have caused unexpected and violent movement of the bulldozer. Tr. 195.

Justice asserts that the malfunctioning blade tilt will not necessarily affect the safe operation of the bulldozer provided the blade is locked into position. Tr. 345-47. It argues that a skilled operator could maintain control of the blade despite these defects. Tr.2 139. Furthermore, Justice reiterates its previously-noted objections to Presley's slack measurements: that Presley did not rely on any Caterpillar specifications regarding the tolerance for slack in blade tilt jacks and that Presley's estimation of one inch of slack, based on observation alone, in the absence of objective methods of measurement, is unreliable. Resp. Br. at 27-28.

Justice's assertion that a skilled operator could overcome the hazard caused by slack in the blade tilt jack and the malfunctioning blade tilt mechanism is unavailing. The Commission has held that the exercise of caution by miners does not mitigate the hazard caused by a violative condition. *Eagle Nest, Inc.*, 14 FMSHRC 1119, 1123 (July 1992).

With respect the observed one inch of slack, the issue is whether the evidence demonstrates that the cited condition is hazardous in that it reflects excessive wear that will ultimately contribute to a loss of control hazard because of a malfunction of the hydraulic lift jack. As discussed herein, while deference is normally accorded to the opinion of an inspector that a cited condition constitutes a violation, according unfettered deference to such opinions concerning the ultimate fact to be determined would offend due process. Nevertheless, the one inch of slack cited in Citation No. 8131455 is as much as eight times greater than the approximately 1/8 and 1/4 inch of slack cited in Citation Nos. 8131453 and 8131459, respectively. Moreover, there was objective evidence of a defect causing excessive slack in that the brass bushing in the right lift jack was missing. In addition, Presley observed that the slack caused the raised blade to fall to the ground when pressure was released from the hydraulic jack. Consequently, the deference to be accorded to Presley's opinion outweighs the lack of technical evidence (such as manufacturer specifications or service manuals) supporting his opinion.

3. Hydraulic Leaks

During his observation of the Cat D11R bulldozer, Inspector Presley identified hydraulic oil leaks "all over the center of the machine" accumulating into a pool in the belly of the bulldozer. Tr. 347. Presley did not take any measurements of the observed pool and he could not identify the source of the cited leaks. *Id.*

The Commission has held that citations "are not duplicative as long as the standards involved impose separate and distinct duties on an operator." *Western Fuels-Utah, Inc.*, 19 FMSHRC 994, 1003-04 (June 1997) (citations omitted). Although the removal of the hydraulic oil pooling in the belly pan was a requirement of both this citation and Citation No. 8131456, I do not consider the two belly pan citations to be duplicative because Citation No. 8131456 has been vacated. While, as previously discussed, the cited hydraulic oil did not constitute a fire hazard in violation of section 77.1104, excessive fluid leaks are indicative of hydraulic system defects, which render mobile equipment unsafe in violation of section 77.404(a) because they pose hazards resulting from a potential hydraulic system failure.

Consequently, the evidence supports Presley's contention that defective idlers, a malfunctioning blade tilt, and pooling of hydraulic oil, individually and together, constitute unsafe operating conditions requiring maintenance, as contemplated by section 77.404(a). Accordingly, **the Secretary has demonstrated the fact of the violation cited in Citation No. 8131455.**

ii. S&S

Having concluded that the defects cited in Citation No. 8131455 constitute unsafe operating conditions in violation of section 77.404(a), the focus shifts to whether there is a reasonable likelihood that the hazards contributed to by these conditions will result in an event in which there is an injury or an illness of a reasonably serious nature. *Cement Division, National Gypsum*, 3 FMSHRC 822, 825 (April 1981).

Determining the likelihood of an accident caused by the subject hazardous conditions must be viewed in the context of continuing mining operations. *U.S. Steel Mining Co.*, 1 FMSHRC 1125, 1130 (Aug. 1985). Given the multi-ton nature of a bulldozer that is operated under extreme conditions, it is reasonably likely that the defects in the idlers and malfunctioning blade tilt will result in a loss of control and injury to the equipment operator. In such an event, the parties have stipulated that the resulting degree of injury would be "lost workdays or restricted duty," which is of sufficient severity to warrant an S&S designation. Accordingly, **the evidence reflects that Citation No. 8131455 has been properly designated as S&S.**

iii. Civil Penalty

Consistent with the previous discussion of the penalty criteria in section 110(i), the cited violative conditions constitute a violation that is serious in gravity and reflective of a moderate degree of negligence. There are no mitigating circumstances to warrant a reduction of the civil penalty imposed by the Secretary. Consequently, **Secretary's proposed penalty of $11,306.00 shall be imposed for Citation No. 8131455.**

ORDER

In view of the above, **IT IS ORDERED** that Citation Nos. 8131450, 8131451, 8131454, 8137018, and 8131453 **ARE VACATED.**

IT IS FURTHER ORDERED that the significant and substantial (S&S) designations in Citation Nos. 8131456, 8131025, and 8131026 **ARE DELETED. IT IS ORDERED** that Justice Energy Company, Inc. shall pay a total civil penalty of $8,500.00 in satisfaction of these three citations.

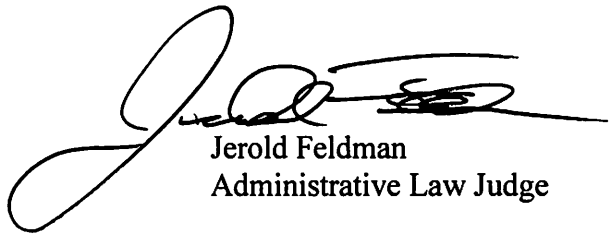
IT IS FURTHER ORDERED that Citation No. 8131459 **IS AFFIRMED. IT IS ORDERED** that Justice Energy Company, Inc. shall pay a reduced civil penalty of $5,200.00 in satisfaction of this citation.

IT IS FURTHER ORDERED that Citation Nos. 8137016 and 8131455, designated as S&S by the Secretary, **ARE AFFIRMED. IT IS ORDERED** that Justice Energy Company, Inc. shall pay a total civil penalty of $16,809.00 in satisfaction of these two citations.

IT IS FURTHER ORDERED that consistent with the parties' settlement terms, Justice Energy Company, Inc. **SHALL PAY** a total civil penalty of $14,579.00 in satisfaction of Citation Nos. 8131452, 8131457, 8131458, 8131460, 8137017, 8137019, and 8137027.

IT IS FURTHER ORDERED that Justice Energy Company, Inc. pay, within 40 days of the date of this Decision, **a total civil penalty of $45,088.00** consisting of a total civil penalty of $30,509.00 for the six citations affirmed in this proceeding, in addition to $14,579.00 for the seven settled citations.[19]

IT IS FURTHER ORDERED that upon timely receipt of the total $45,088.00 payment, the civil penalty proceeding in WEVA 2012-375 **IS DISMISSED.**



Jerold Feldman
Administrative Law Judge

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/acp

[19] Payment should be sent to the Mine Safety and Health Administration, U.S. Department of Labor, Payment Office, P.O. Box 790390, St. Louis, MO 63179-0390. Please include the Docket No. and A.C. No. noted in the above caption on the check.