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KENTUCKY OCCUPATIONAL SAFETY AND HEALTH

JULIAN M. CARROLL  
GOVERNOR

REVIEW COMMISSION

MERLE H. STANTON  
CHAIRMAN

IRIS R. BARRETT  
EXECUTIVE DIRECTOR

104 BRIDGE ST.  
FRANKFORT, KENTUCKY 40601  
PHONE (502) 564-6892

CHARLES B. UPTON  
MEMBER

JOHN C. ROBERTS  
MEMBER

June 29, 1979

KOSHRC #403

COMMISSIONER OF LABOR  
COMMONWEALTH OF KENTUCKY

COMPLAINANT

VS.

BARMET OF KENTUCKY, INC.

RESPONDENT

DECISION AND ORDER OF  
REVIEW COMMISSION

Before STANTON, Chairman, UPTON and ROBERTS, Commissioners.

PER CURIAM:

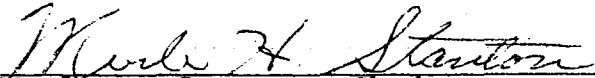
A Recommended Order of Hearing Officer Paul Shapiro, issued under date of 31 January 1979, is presently before this Commission for review pursuant to Petitions for Discretionary Review filed by both parties.

This Commission REVERSES the Hearing Officer's Recommended Order insofar as it dismissed Item 3 of Citation No. 1.

We find that the Commissioner of Labor initially established a violation of 29 CFR 1910.252(a)(2)(ii)(d) (as adopted by 803 KAR 2:020). The Respondent offered no rebuttal testimony which would indicate that the cylinder was not of a type designed to accept a cap. In the absence of any proof to the contrary, the Commissioner's evidence preponderates. Item 3 of Citation No. 1 therefore should be sustained.

We further find a terminological error in the Recommended Order on page 31, the last full paragraph, the fifth (5th) line. Context determines that the word "deactivated" should be deleted and the word "de-energized" should be added. We so amend.

Accordingly, IT IS THE ORDER of this Commission that the Hearing Officer's Recommended Order dismissing Item 3 of Citation No. 1 is hereby REVERSED. A non-serious violation of 29 CFR 1910.252(a)(2)(ii)(d)(as adopted by 803 KAR 2:020) is hereby SUSTAINED. Abatement shall be immediate. The Recommended Order stands AMENDED on page 31 as stated herein. All findings and conclusions of the Hearing Officer not inconsistent with this opinion are hereby AFFIRMED.

  
Merle H. Stanton, Chairman

s/Charles B. Upton  
Charles B. Upton, Commissioner

s/John C. Roberts  
John C. Roberts, Commissioner

DATED: June 29, 1979  
Frankfort, Kentucky

DECISION NO. 736

Copy of this Order has been served by mailing or personal delivery on the following:

Commissioner of Labor (Messenger Service)  
Commonwealth of Kentucky  
U. S. 127 South  
Frankfort, Kentucky 40601  
Attention: Honorable Michael D. Ragland  
Executive Director for  
Occupational Safety & Health

Honorable Timothy P. O'Mara (First Class Mail)  
Assistant Counsel  
Department of Labor  
801 West Jefferson Street - 1st Floor  
Louisville, Kentucky 40202

Honorable David L. Yewell (Certified Mail #P10 9897776)  
Rummage, Kamuf & Yewell  
322 Frederica Street  
Lincoln Federal Building  
Owensboro, Kentucky 42301

Honorable Charles S. Wible (First Class Mail)  
208 West Third Street  
Owensboro, Kentucky 42301

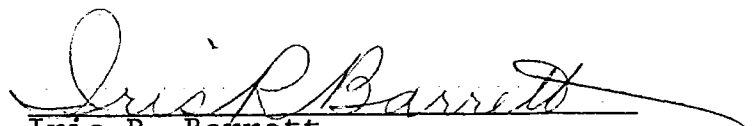
Honorable Stephen D. Gray (First Class Mail)  
Ohio Valley National Bank Building  
Henderson, Kentucky 42420

Honorable Richard M. Joiner (First Class Mail)  
123 East Center Street  
Madisonville, Kentucky 42431

Honorable Phillip G. Abshier (First Class Mail)  
Executive Inn Rivermont  
One Executive Boulevard  
Owensboro, Kentucky 42301

Honorable Nathan B. Cooper (First Class Mail)  
Executive Inn Rivermont  
One Executive Boulevard  
Owensboro, Kentucky 42301

This 29th day of June, 1979.

  
Iris R. Barrett  
Executive Director

POC By C 2/26

WJ  
RJR

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KENTUCKY OCCUPATIONAL SAFETY AND HEALTH

REVIEW COMMISSION

104 BRIDGE ST.

FRANKFORT, KENTUCKY 40601

PHONE (502) 564-6892

January 31, 1979

JULIAN M. CARROLL  
GOVERNOR

IRIS R. BARRETT  
EXECUTIVE DIRECTOR

MERLE H. STANTON  
CHAIRMAN

CHARLES B. UPTON  
MEMBER

JOHN C. ROBERTS  
MEMBER

KOSHRC # 403

COMMISSIONER OF LABOR  
COMMONWEALTH OF KENTUCKY

COMPLAINANT

VS.

BARMET OF KENTUCKY, INC.

RESPONDENT

NOTICE OF RECEIPT OF  
RECOMMENDED ORDER, AND  
ORDER OF THIS COMMISSION

All parties to the above-styled action before this Review Commission will take notice that pursuant to our Rules of Procedure—a Decision, Findings of Fact, Conclusions of Law, and Recommended Order is attached hereto as a part of this Notice and Order of this Commission.

You will further take notice that pursuant to Section 48 of our Rules of Procedure, any party aggrieved by this decision may within 25 days from date of this Notice submit a petition for discretionary review by this Commission. Statements in opposition to petition for discretionary review may be filed during review period, but must be received by the Commission on or before the 35th day from date of issuance of the recommended order.

Pursuant to Section 47 of our Rules of Procedure, jurisdiction in this matter now rests solely in this Commission and it is hereby ordered that unless this Decision, Findings of Fact, Conclusions of Law, and Recommended Order is called for review and further consideration by a member of this Commission within 40 days of the date of this order, on its own order, or the granting of a petition for discretionary review, it is adopted and affirmed as the Decision, Findings of Fact, Conclusions of Law and Final Order of this Commission in the above-styled matter.

Parties will not receive further communication from the Review Commission unless a Direction for Review has been directed by one or more Review Commission members.

Copy of this Notice and Order has been served by mailing or personal delivery on the following:

Commissioner of Labor (Messenger Service)  
Commonwealth of Kentucky  
U. S. 127 South  
Frankfort, Kentucky 40601  
Attention: Honorable Michael D. Ragland  
Executive Director for  
Occupational Safety & Health

Hon. Kenneth E. Hollis (Messenger Service)  
General Counsel  
Department of Labor  
U. S. 127 - South  
Frankfort, Kentucky 40601  
Attention: Hon. Timothy P. O'Mara  
Assistant Counsel

Hon. David L. Yewell (Certified Mail #676341)  
Rummage, Kamuf & Yewell  
322 Frederica Street  
Lincoln Federal Building  
Owensboro, Kentucky 42301

Hon. Charles S. Wible (First Class Mail)  
208 West Third Street  
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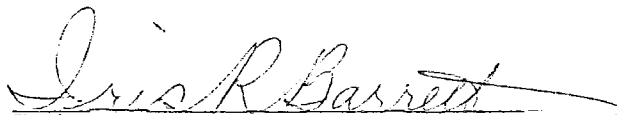
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Executive Inn Rivermont  
One Executive Boulevard  
Owensboro, Kentucky 42301

Hon. Nathan B. Cooper  
Executive Inn Rivermont  
One Executive Boulevard  
Owensboro, Kentucky 42301

(First Class Mail)

This 31st day of January, 1979

  
Iris R. Barrett  
Executive Director

KENTUCKY OCCUPATIONAL SAFETY AND HEALTH  
REVIEW COMMISSION

KOSHRC #403

COMMISSIONER OF LABOR  
COMMONWEALTH OF KENTUCKY

COMPLAINANT

VS.

FINDINGS OF FACT,  
CONCLUSIONS OF LAW AND  
RECOMMENDED DECISION

BARMET OF KENTUCKY, INC.

RESPONDENT

VS.

JEWELL FAYE CLARK, ADMINISTRATRIX  
OF THE ESTATE OF WILLIAM CLARK &  
HIGDON CONTRACTING COMPANY

INTERVENOR

STATEMENT OF THE CASE

This matter arises out of two citations issued August 11, 1977, against Barmet of Kentucky, Inc., hereinafter referred to as "Barmet", by the Commissioner of Labor, hereinafter referred to as the "Commissioner", for violation of the Kentucky Occupational Safety and Health Act, hereinafter referred to as the "Act".

On July 13, 14 and 25, 1977, a Compliance Officer for the Commissioner made an inspection of Barmet's manufacturing plant in Livia. As a result of that inspection, the Commissioner issued two citations on August 11, 1977, charging Barmet with four nonserious violations of the Act and two serious violations of the Act, and proposing a penalty of \$950.00 for the serious violations.

On August 22, 1977, and within 15 working days from receipt of the citation, Barmet filed a notice with the Commissioner contesting the citations. Notice of the contest was transmitted to this Review Commission on August

24, 1977, and notice of receipt of the contest was sent by this Review Commission to Barmet on August 25, 1977. Thereafter, on September 9, 1977, the Commissioner filed its Complaint, together with a motion to consolidate this action with another contest filed with this Review Commission by Barmet styled: Commissioner of Labor, Commonwealth of Kentucky vs. Barmet of Kentucky, Inc., KOSHRC #403.

On September 23, 1977, Barmet filed its Answer and a motion for a Prehearing Conference in both actions. This matter was then assigned to a Hearing Officer on September 27, 1977, and by Order dated September 28, 1977, a Prehearing Conference was scheduled in both cases for October 21, 1977. At the Prehearing Conference several issues were raised including not only the matter of consolidation, but also the right of the estate of one of Barmet's deceased employees, James Ronald Sallee, to intervene in KOSHRC 402, and the right of the estate of William Harold Clark, deceased and Higdon Contracting Company, Inc., for whom Mr. Clark had been employed at the time of his death, to intervene in this action. Due to the numerous issues raised the Commissioner moved during the conference to withdraw its motion to consolidate. By Order dated October 21, 1977, the Commissioner's motion to withdraw its motion to consolidate was sustained and both actions were set for hearing. No order was entered relative to the rights of the parties to intervene, however, since no petition to that effect had been filed.

On October 25, 1977, Jewell Faye Clark, as Administratrix of the Estate of William Harold Clark, moved to intervene in this action, and on that same date, by separate motion, Higdon Contracting Company, Inc., also moved to intervene in this action. On November 3, 1977, Barmet filed its objections to the motions and, at the same time, filed an objection to the Review Commission's order of October 21, 1977, on the grounds that representatives of the Sallee Estate, the Clark Estate, and Higdon Contracting



Company, Inc., were permitted to participate in the conference although not parties to either action. Barmet also moved that the Orders dated September 28, 1977 and October 21, 1977, be stricken from the record and for a second Prehearing Conference. On November 19, 1977, Barmet also moved to continue the hearing set for December 1, 1977, to permit the resolution of the several procedural issues raised since the Order of October 21, 1977, both in this action and KOSHRC 402. On November 23, 1977, this Review Commission continued the hearing set for December 1, 1977, and set a Prehearing Conference to resolve these procedural issues.

The Prehearing Conference was held on December 1, 1977. On December 6, 1977, this Review Commission issued an Order setting a time for the original parties and the parties seeking to intervene to file memorandum briefs in support of their respective positions; overruling Respondent's motion to strike the orders of September 28, 1977, and October 21, 1977, and setting a new date for the hearing in this matter. On December 28, 1977, after the filing of the memorandums and before the hearing, this Review Commission issued an Order permitting the Estate of William Harold Clark, and the Higdon Contracting Company, Inc., to intervene in this action on a limited basis.

The hearing of this matter was begun on January 12, 1978. Unable to complete it on that date it was continued by Order of this Review Commission to February 10, 1978, and then to March 1, 1978. The hearing was completed on March 2, 1978.

The hearing was held pursuant to KRS 338.070(4) which authorizes this Review Commission to rule on appeals from citations, notifications, and variances to the Act, and to adopt and promulgate rules and regulations concerning the conduct of those hearings. KRS 338.081 further authorizes this Review Commission to appoint Hearing Officers to conduct its hearings and represent it in this manner. The decisions of Hearing Officers are subject to discretionary review by this Review Commission on appeal timely filed by either party, or upon the Review Commission's own motion.

The standards (as adopted by 803 KAR 2:020) allegedly violated, the description of the alleged violations and the penalty proposed for same are as follows:

CITATION 1

"National Electrical Code" Article 250-42(f) as adopted by 29 CFR 1910.309(a)	Exposed noncurrent-carrying metal parts of fixed equipment which operates with terminals in excess of 150 volts to ground, were not grounded (blower motors on dust collector).	-0-
"National Electrical Code" Article 400-5 as adopted by 29 CFR 1910.309(a)	Flexible cord was not used in continuous lengths without splice (air conditioner cord, office).	-0-
29 CFR 1910.252(a)(2)(ii)(d)	A valve protection cap was not in place, handtight on an acetylene cylinder stored in the cylinder rack (near maintenance office).	-0-
29 CFR 1910.178(m)(5)(i)	A powered industrial truck was left running unattended (truck No. 202, mill).	-0-

CITATION 2

29 CFR 1910.145(f)(3)(iii)	Do Not Start tags were not placed in a conspicuous location or were not placed in such a manner that they effectively blocked the starting mechanisms which would cause hazardous conditions should the equipment be energized (circuit breakers not tagged, locked, or rendered inoperative, electrical control room).	\$950.00
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and

"National Electrical Code" Article 250-51 as adopted by 29 CFR 1910.309(a)	The path to ground from circuits, equipment and conductor enclosures was not permanent and continuous, and did not have ample carrying capacity to conduct safely any currents liable to be imposed on it, and did not have impedance sufficiently low to limit the potential above ground and to facilitate operation of the overcurrent devices in the circuit (deteriorated raceways, throughout plant).
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MOTION BY THIRD PARTIES TO INTERVENE

Before discussing the substantive issues in this case, there is a procedural matter involving the intervention of third parties in these proceedings. As noted above in the Statement of the Case, both the Estate of William Howard Clark and Higdon Contracting Company, Inc., were permitted to intervene in this action, even though they were not employees of Barmet.

In the companion case, Commissioner of Labor vs. Barmet of Kentucky, Inc., Docket No. 402, it was held that an estate of a deceased employee could intervene as a party in those proceedings because it satisfied all the criteria of Section 14(2) of this Review Commissions' Rules of Procedure including the requirement that the intervenor set forth an interest in the proceeding. There it was held that the "potential impact of a decision in (those) proceedings (upon proceedings) in collateral litigation before other tribunals is a sufficient interest to justify intervention".

Although the intervenors in this case are further removed from Barmet, in that they were not employees of the company, the same principles would apply here. Therefore, the previous orders herein affirming the right of Clark's Estate and Higdon to intervene are reaffirmed.

SUMMARY OF TESTIMONY

The testimony in this case was presented over a period of several days and the transcript consists of five volumes. Therefore, the following summary of the testimony may be of assistance in understanding the basis of the decision.

STEPHEN COOMES

Stephen Coomes testified that he was a Compliance Safety and Health Officer for the Kentucky Department of Labor. He had been in that position since July, 1973. Prior to that he was employed by the U. S. Department of Labor as a Compliance Officer on a loan program, and prior to that he had

been a safety inspector for the Kentucky Department of Labor's Occupational Safety Division. He has a Bachelor of Science degree and has attended the Federal OSHA Institute near Chicago, a Federal OSHA seminar in Atlanta and several seminars conducted by the Kentucky Department of Labor. He is not an electrician or electrical engineer and he has had no formal training in electricity, but he believes he is qualified on the basis of experience to do limited electrical work.

On July 13, 14 and 25, 1977, Coomes stated that he inspected Barmet's plant in connection with this citation. This was not his first inspection of the plant, having inspected it on June 28 and July 1, 1977 in connection with the citation issued in KOSHRC 402. The plant had also been inspected on May 18, 1977 by another Compliance Officer.

Coomes stated that during the inspection relating to this citation, he was accompanied by Mark Wade, a trainee, and Louis Davis another employee of the Commissioner. Management officials from Barmet and Higdon Contracting Company also accompanied him at various times on the inspection. The purpose of the inspection was to investigate the accident at the plant which resulted in William Clark's death.

Coomes states that during the course of his inspection he observed four separate conditions which he cited as nonserious violations. The first involved three electrical cables which were draped over supports on a dust collector. Coomes said that these cables did not have ground conductors and he cited their absence as a violation of the National Electrical Code Article 250-42(f) (as adopted by 1910.309(a)).

The second item involved the electrical cord on an air conditioner in an office. Coomes said that the cord had apparently been lengthened by splicing a section of cord to it. He stated that this was also a violation of the National Electrical Code, Article 400-5.

The third item involved an acetylene tank in a rack outside the maintenance office. This tank did not have a valve protection cap on it

to protect the valve in case it was hit by an object or if the cylinder fell. Coomes stated that this was a violation of 1910.252(a)(2)(ii)(d).

The fourth condition cited as a nonserious violation involved an industrial truck. Coomes stated that when he observed the truck it was unattended and had its motor running. This was cited as a violation of 1910.178(m)(5)(i).

Although one of the nonserious violations was considered hazardous enough to justify a penalty, because the citation contained less than 10 nonserious violations, no penalty was proposed. This is in accordance with a departmental policy that penalties will not be proposed for nonserious violations when there are less than 10 in a citation.

Coomes states that he also found two conditions which he cited as serious violations. The first condition was a failure to use "Do Not Start" tags on electrical switches when it was necessary to shut them off for maintenance or repairs. He stated that he observed electrical equipment which was in such a deteriorated condition that it would be dangerous to energize it, but that "Do Not Start" tags, or other similar devices, were not attached to the switches that energized this equipment. He said that 1910.145(f)(3)(iii) requires that when such equipment is deenergized, "Do Not Start" tags must be attached in a conspicuous manner to the electrical switches on the equipment, or the switch must be locked or rendered inoperable. The purpose of the tags is to prevent the equipment from being energized accidentally. Coomes stated that he had been informed by company personnel that such tags were not used when electrical equipment was deenergized.

Coomes also stated that the raceways in the plant, which he described as the electrical conduits, switch boxes, circuit breakers and other equipment used to conduct electricity, were, with the exception of the equipment in the Control Room, in a deteriorated condition throughout the plant. This deterioration was reported to him to be the result of the

processing operations at the plant which tended to corrode metal. These raceways in addition to carrying electricity were also depended upon to provide the electrical ground for the wires within them. In Coomes opinion, their corrosive condition prevented them from providing a proper path to ground. This was in violation of the National Electrical Code, Article 250-51, as adopted by 1910.390(a).

As a part of his inspection, Coomes performed an impedance test with a ground loop impedance meter. This is a device which measures resistance in a circuit in terms of ohms. A perfect ground would show no resistance or read "0" on the meter. The more resistance, the higher the reading and the less path to ground. The test was conducted in three places, and although he could not recall his readings, Coomes stated that they were all higher than what was permissible according to a chart attached to the meter case. In addition, the meter responded slowly to the electricity which, to Coomes, was indicative of a poor path to ground.

Both the failure to use "Do Not Start" tags and the failure to provide a proper ground were grouped as one violation. Further, because hazards they presented could result in death or serious bodily harm, they were classified as a serious violation and a penalty of \$950.00 was proposed. The penalty was proposed in accordance with guidelines established by the Commissioner and which are contained in the Compliance Manual furnished to the Compliance Officer.

Under the guidelines all serious penalties carry an unadjusted penalty of \$1000.00. Reductions are allowed of up to 20% for "good faith", of up to 20% for "history" and of up to 10% for "size"; for a maximum of 50%.

Coomes stated that "good faith" takes into consideration the employer's awareness of the act, of his safety program, his willingness to correct hazards and similar factors. In this case, Coomes did not allow anything for good faith because he found Barmet's safety and health program to be ineffective.

History, according to Coomes, is based on previous inspections. When there have been no previous inspections, an employer receives the maximum of 20%, but when he has been inspected on other occasions the amount allowed is dependent on the number of prior inspections and whether they resulted in citations. Here, Coomes allowed no reduction because Barmet had been inspected earlier and had received citations.

The last factor, size, is based on the number of employees. Where there are less than 20 employees, an employer receives 10%; from 20 to 99 employees, he receives 5%, and above 99 he receive none. Barmet had between 20 and 99 employees and received 5% or \$50.00.

MICHAEL CALDWELL

Michael Caldwell testified that he was a laborer employed by Higdon Contracting and that he was working with William Clark when Clark was killed. He stated that the accident occurred on a Monday and that he and Clark, Bobby Ford and "Bud" Johnson had been working at Barmet since the previous Thursday. At the time of the accident they were preparing to install new metal siding on one of Barmet's buildings.

Caldwell described the accident and the events leading up to it. He stated that when the accident occurred, they were in the process of installing the first metal sheet to be installed and were putting it in place. He and either Bobby Ford or William Clark, had carried the sheet by hand from the place where it was stored and had placed one end of the sheet on the forks of a forklift truck and the other end against the building. The sheet was 20 feet long by three feet wide and the foreman, Bud Johnson, was on one of the building's girders, about 20 feet above the ground, holding the top of the sheet. Caldwell stated that he was standing on the ground next to the forklift truck, and that Clark was standing on the truck with one foot on each fork.

To fasten the siding, the men were using an electric drill and an electric impact wrench. The electric drill was used to drill holes into

the "purlins" and the impact wrench was used to attach the siding to the purlins with metal screws. Two extension cords and one "Y" extension cord with two sockets, were being used to supply the electricity for the tools. Each of the tools was plugged into one of the sockets of the "Y" cord. The cords and the impact wrench all had three pronged plugs. However, the drill was double insulated and had a two pronged plug.

Caldwell stated that just before the accident he plugged the tools into the Y cord. He then handed the tools to Clark who took both of them in one hand by their cords, about 12 inches from the tools. Clark then grabbed the metal sheet and as he did so he hollered, grabbed his stomach and fell to the ground.

Caldwell testified that prior to the accident he had received three electric shocks. On one occasion he was plugging in a cord to drill some holes in the metal siding when he received a small shock. He stated that Clark had asked him to plug the cord in because Clark was wearing leather soled boots while Caldwell's boots were rubber soled. However, before doing so, he placed a three foot long two by six inch plank on the ground to stand on. Despite these precautions, Caldwell still received a shock. Caldwell was not sure when he received the shock, but he believed that it was on the day of the fatal accident.

Caldwell testified that he received the two other shocks on the Friday before the accident while working on a scaffold. On the first occasion he was tying the scaffold to an I-beam in the building when he received a shock in his left arm. The scaffold was metal and at the time he was "hanging" from its frame and not standing on any board across it.

When he received the second shock, he was working on the scaffold removing bolts. One of the bolts he was removing was rusted and he was hitting it with a hammer when he suddenly received a shock. He reported this shock to his foreman, Bud Johnson, who then informed the plant electrician.



It was Caldwell's understanding that the plant electrician then turned the electricity off on that side of the building.

Caldwell described the ground at the plant where they were working as muddy and damp. Because of the water and mud he stated that when he plugged the extension cords into the electricity on the day of the accident, he hung that portion of the cords near the wall socket in the air. However, the rest of the cords were allowed to run along the ground through areas which were wet and muddy.

Caldwell also stated that on the Monday of the accident he observed some wires hanging from electrical conducts along the wall. He said that this condition had not existed the Friday before.

LEO "BUD" JOHNSON

Leo Johnson testified that he was a foreman for Higdon Contracting Company and had been employed by the Company for five years. He was also the foreman on the job performed at Barmet when William Clark was killed. He stated that on the Friday before the accident, Michael Caldwell had complained to him of receiving electric shocks while working on a scaffold at the side of one of Barmet's buildings and had told him that he was not going back on the scaffold until the area was safe. Johnson stated that he reported the situation to the plant electrician who flipped a switch in the electrical control room and told Johnson "that the wall is dead". "Do Not Start" tags or other warnings, however, were not placed on the switch to keep it from being turned back on. Johnson said he received no other reports of electrical shock until after the accident. At that time, Caldwell informed him that he had received a shock while plugging in an electric drill earlier that day to predrill some siding. Johnson stated, however, that he had also used the drill himself earlier that day to predrill the siding and he had received no electric shock and that the drill had worked perfectly.

One of the extension cords used at the time of the accident was also used to predrill the siding. When the predrilling was completed, the drill was put in a toolbox on the foreman's truck, but the extension cord was left lying on the ground beside the wall of the building into which it was plugged.

Johnson also described the accident, and the events leading up to it, but in more detail than Caldwell. He stated that he sent Caldwell to get the extension cord which they had used earlier to predrill the siding, and that he went with Caldwell to his toolbox to get the other extension cord the "Y" cord, and the tools. He said he took the tools and the "Y" cord out of the toolbox himself, and that Caldwell took out the second extension cord. Caldwell then plugged the tools and the cords together. In doing so he ran the extension cords over various objects so that they were not running along the ground.

Caldwell and Bobby Ford then went to get the first sheet to be installed from the place where it was stored while he went to get Barmet's forklift truck. A plank was put across the forks of the truck and one end of the metal sheet was placed on the plank and the other was leaned up against a girder on the wall. Because of numerous pipes and other obstacles on the side of the wall, it was their intention to lift the siding slowly up the wall with the forklift truck while Johnson climbed from one girder to the next to guide it.

Johnson stated that the accident occurred while he was between the third and fourth girders. At the same time, Ford had been sent back to the foreman's truck to pick up some screws, Caldwell was standing beside the forklift holding the extension cord off the ground and Clark was standing on the forks of the truck holding the electric cord of the drill and impact wrench in one hand. Johnson and Clark were preparing to slide the sheet slightly to one side to clear an obstacle and Clark grabbed the sheet with his free hand. As Clark's hand touched the sheet Johnson stated that he received a shock, he then heard Clark shout "Oh my God" and immediately

fall to the ground. Johnson stated that the shock he himself received was so strong that he was unable to move until Clark fell to the ground.

Johnson testified that before the accident, Clark had stood on the forks on the truck for about five to ten minutes holding the tools. During this period the sheet had been allowed to rest against the wall and Johnson had been touching it. However, Clark did not touch the sheet until the accident.

Johnson described the area in which they were working at the time of the accident as muddy. He stated that the extension cords were approximately three weeks old and that they were equipped with three pronged cords. After the accident they, along with the tools, were confiscated by John Grunigen. When Grunigen confiscated the tools the county coroner was present at the scene investigating the accident. Johnson stated that Grunigen tested the drill by operating it, but he was not sure if he also tested the impact wrench.

It was also pointed out in Johnson's testimony that Barmet's employees were also working in the same general area that Higdon's employees were working at the time of the accident.

STEVEN R. LAMBLE

Steven R. Lamble testified that he was employed by Hidgon Contracting in sales and design. Part of his duties include the inspection of various job sites to see how the work is progressing. On July 11, 1977, he was informed that one of Higdon's employees had been electrocuted at Barmet. He and Bill Kelley, another employee of Hidgon familiar with the site, went immediately to the scene. His purpose in going there was to inspect the equipment involved, to take pictures of the confiscated items and to take pictures of the accident site.

After he arrived at the site he took several pictures (Complainant's Exhibits 7 through 14). Although he was not there at the time of the accident, Lamble stated that he knew what Higdon's equipment consisted of and he used that knowledge as the basis for deciding what pictures should be taken.

Complainant's Exhibits 7 through 9 show Higdon's scaffolding and the buildings electric wires behind it. Complainant's Exhibit 10 shows the sheet being installed and Complainant's Exhibit 11 shown the scaffolding the wiring and the sheet in relation to one another. Complainant's Exhibit 12 and 13 show the scaffold and the wall and in Exhibit 13, a light is shown shining on the wall indicating that there is electricity in the area. The last photograph, Exhibit 14, shows the impact wrench and the drill.

STEPHEN COOMES - RECALLED

Stephen Coomes was recalled as a witness following the testimony of Steven R. Lamble. On direct examination he was asked to compare Complainant's Exhibit 1 and Complainant's Exhibit 13. Exhibit 1 which Coomes took, is a photograph of the side of the plant building where Higdon's employees had been working. The photograph shows a light fixture with the light off.

Complainant's Exhibit 13 is a photograph taken by Mr. Lamble of the same section of the building. This photograph was taken shortly after the accident and before Exhibit 1. It also shows the same light fixture with the light burning.

Complainant's Exhibit 1 was also compared to Complainant's Exhibit 12. In Exhibit 12, a raceway is shown in a horizontal position, while in Exhibit 1 the same raceway is in a vertical position indicating it was moved. Exhibit 12 also shows a broken raceway indicating to Coomes that the "electrical and mechanical continuity of the raceway was not maintained" and therefore, was not an effective ground.

On cross examination, eight other photographs taken by the witness during the course of his investigation were introduced as Respondent's Exhibits 1 through 8 inclusive. Respondent's Exhibit 1 is a photograph of the building where Higdon's men were working at the time of the accident. Respondent's Exhibits 2, 3 and 4 are photographs of the lift truck they were using and Exhibit 3 in particular shows a plank across the forks.

Respondent's Exhibit 5 is a photograph of the area where Higdon's men were working and also of the sheet they were installing. This photograph also shows two planks, one of which the witness believed to be the one that was placed across the forks of the truck just before the accident.

Respondent's Exhibits 6, 7 and 8 were of the equipment Higdon was using. Respondent's Exhibit 6 shows the two 100 foot extension cords, Respondent's Exhibit 7 shows the power drill and Respondent's Exhibit 8 shows the impact wrench and the "Y" cord.

With reference to the light shown in Complainant's Exhibit 1 and 13, Coomes stated he was shown two circuits in the control room. Although, he did not trace them, he understood they controlled all the power to the side of the building Higdon was working on, and therefore, one of them must have furnished electricity to the light.

Coomes also testified concerning the condition of the equipment shown in Respondent's Exhibits 1 through 8. He stated that the ground lug was missing on the plug of one of the extension cords, and that the impact wrench had a loose wire in the switch. He stated that the missing lug could present a potential hazard to persons using the cord if there was a ground fault in the system. However, it was his opinion that the defective switch in the impact tool presented no hazard, but, instead provided additional protection since it might prevent electricity from going to the motor of the tool.

Concerning the exposure of Barmet's employees, Coomes testified that the raceways throughout the plant were in a deteriorated condition. These raceways in addition to conducting electricity, also provided the ground for the electricity. However, because of their deteriorated condition, they did not provide an adequate ground and as a result, the safety provided by the fuses, circuit breakers and other overcurrent devices was nullified.

Coomes also discussed the condition of the raceways insofar as it affected ~~Barmet's employees working in the bag house.~~ Coomes stated that the bag house, though a separate building, was connected to the main building by piping and steel, and was, therefore, subject to stray currents from the main building. He stated that employees worked in the Bag House every day and he observed 2 to 3 of Barmet's employees working there on the days of his investigation. He said these employees would be exposed to any hazard that might be created by these stray currents.

LOUIS W. DAVIS

Louis W. Davis testified that he was an Electrical Specialist for the Department of Labor. As such, his duties are to teach the department's compliance officers about electrical hazards and the requirements of the National Electrical Code, to conduct seminars on electrical safety and the Code and to consult with industry on electrical safety and OSHA requirements. Davis has had electrical training in vocational school, the United States Navy's electrical schools, and numerous night schools. He has also studied at home.

Davis is licensed by Louisville and Jefferson County as an electrician. He worked in electricity for Westinghouse, Reliance Electrical Company and the United States Navy before joining the Department of Labor. As a part of his duties with the department he accompanied Coomes to Barmet's plant to investigate the fatal accident to William Clark.

As a part of his inspection, Davis inspected the power drill and the impact wrench which Clark was holding at the time of death. He described the drill as a double insulated tool which did not require grounding. He tested both tools with a Simpson 260 Multimeter to determine if there was a significant connection between the current carrying components of the tools and noncurrent carrying components. The tests showed that although

there was some leakage, both tools were safe and presented no shock hazard. Davis stated that some leakage is to be expected in all electrical equipment.

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Davis did find that approximately 10% of the wire strands on the ground wire of the impact wrench cord were not secured by the terminal lug used to connect the ground wires to the switch. It was Davis' opinion, however, that the loose strands were too few to affect the grounding of the tool. Davis also inspected the electrical cords on the tools and found nothing wrong with them.

The extension cords which the tools had been plugged into at the time of the accident were also inspected. Here again, the Simpson 260 Multimeter was used and the readings obtained showed they were satisfactory. On one of the cords, however, the ground prong was missing at the time of the inspection. Davis stated that this would not present a hazard as long as the tools with which it was being used did not have a ground fault. Since neither of the tools tested were found to have a ground fault, Davis said the missing prong had no significance in the accident.

Davis was asked a hypothetical question based on the following assumed facts: (1) that the deceased employee of Higdon was assisting in the installation of sheet metal siding on a building, (2) that the ground in the area was wet and muddy, (3) that the deceased employee was standing on the forks of a forklift truck holding the drill and wrench by their electrical cords in one hand; (4) that another employee was above him on a girder of the building, with one hand holding the top of steel sheet and the other holding the girder; and (5) that when the deceased employee touched the sheet metal with his free hand, he was fatally electrocuted. On the basis of these facts, Davis was asked if he had an opinion on the relationship of the tools to the accident. He stated that he had an opinion and it was that the tools had no relation to the accident.

Davis stated that most electrocutions are the result of ground fault problems. When the tools and cords did not show such a fault he directed his investigation elsewhere. In the course of his investigation, he learned that the manufacturing process tended to corrode the metal in the plant, including the metal electrical raceways which were relied upon as the sole means of grounding the electrical system. Corrosion increases the impedance level of metal to electricity so that corroded metal is a poor conductor of electricity. As a result if there was a surge in power in one of the plant's circuits, the raceway for that circuit, because of their corroded condition and their high level of impedance, might not carry the excess power back to the circuit breakers. This in turn would prevent the circuit breakers from tripping out and cutting off the electricity going into the circuit.

Davis also testified about the significance of Complainant's Exhibit 12. That Exhibit is a photograph of a section of a wall and it shows a conduit along the wall which is connected to a box or another conduit by one or two wires. Davis said the failure to connect the two conduits with another conduit, where the conduits are part of a raceway that is the only means used to ground the circuit, was a violation of the National Electrical Code because the circuits lacked grounding continuity. Thus, if there was a ground fault below or "downstream" from this area, and it came in contact with some equipment, or the structure of the building, which did not have a low impedance back to the electrical service equipment where the circuit breaker was located, it would create a hazard of electrical shock.

Davis also said that because of the corrosive condition of the raceways, it was possible that a ground fault could energize one part of the building and not another.

Davis testified that he conducted a ground loop impedance test on two electric receptacles. One of the receptacles was reported to be the



one the extension cords had been plugged into at the time of the accident. The other was about 100 feet away. Both tested within acceptable ranges on the tester, although the second receptacle was slow in responding.

Davis also inspected a circuit breaker in the control room which the Plant Electrician informed him had been turned off because of reports of shock in the area it supplied power to. There was no "Do Not Start" tags on the breaker. These tags are used as a warning not to energize or turn on the switch.

Davis distinguished between deenergizing a circuit and deactivating one. He stated that deenergizing meant to simply turn the switch off. Deactivating, on the other hand, meant disconnecting the switch from the power source. Davis said he understood from the plant electrician that the switch he inspected had been deenergized, and he did not attempt to determine if it had been deactivated.

Davis was also asked if he had an opinion as to what caused William Clark's death. He stated that in his opinion there was a ground fault in the area and that the grounding equipment was not able to trip out the overcurrent device so that the structural steel became energized in the area where the siding was being installed. The electricity flowed from the structure through the man on the girder to the steel sheet. However, while the steel sheet was resting on the wood plank on the forks of the truck, it was insulated from the ground. Clark, though, was not insulated from the ground, and when Clark touched the steel sheet with his free hand a circuit was created for the electricity to flow through. This circuit was not broken until Clark fell from the forks away from the sheet.

On cross examination, Davis admitted that if a ground fault due to dampness, was created in the impact wrench, and if one of the extension cords had the ground prong missing at the same time, then Clark could have received a shock from the impact wrench by touching it.

MICHAEL G. MUSTER

~~Michael G. Muster stated that he was the Deputy Coroner for McLean~~  
County and that he and his father and brother operate the Muster Funeral Home in Calhoun. He is a licensed Funeral Director and has a Bachelor of Science degree from Central State University in Edmund, Oklahoma.

On July 11, 1977, he received a call requesting an ambulance at Barmet. When he arrived at the plant, he found some men giving oxygen to William Clark who was lying on the ground on his back. The ground was very wet and there was a light gray powdery substance throughout the area. He examined Mr. Clark and when he was unable to find any vital signs pronounced him dead.

Muster stated that he made an investigation to determine the cause of death. He examined a drill and an impact wrench which were on the ground in the area, and which he was informed Clark was holding at the time of his accident. Muster also examined the extension cords and found that on one of them the ground prong was missing from the plug.

In the course of his investigation, Muster stated he talked to two employees, Leo Johnson and Mike Caldwell. He stated that Johnson told him the men working on the job had experienced three electrical shocks during the day from the tools. He understood Johnson to mean the impact wrench and the drill.

Muster estimated that it took him about 10 minutes to reach the scene of the accident after he received the call. He also estimated that he arrived at the scene between 15 to 18 minutes after the accident, assuming he was called within 3 to 5 minutes after it occurred.

THOMAS CLEAVER

Thomas Cleaver testified as an expert witness for Barmet. He stated that he has been employed by the University of Louisville for seven years and for the past two years he has been an Associate Professor of Electrical Engineering. Prior to his present position he was an Assistant Professor

of Electrical and Biomedical Engineering. He has a Bachelor of Science degree in Electrical Engineering from Case Institute of Technology, a Master of Science degree in Electrical Engineering from Ohio State University and a PhD in Biophysics from Ohio State.

Cleaver stated that he was a senior member of the Institute of Electrical and Electronic Engineers (IEEE). He explained that a senior member is a grade above a regular member and denotes demonstrated superior performance in his field as determined by an examining board.

As an instructor he comes in contact with electrical equipment. He is also a registered professional engineer and serves as a consultant on electrically related matters, particularly electrical safety and electrically caused fires. He stated that he was familiar with the Codes and standards related to the use of electricity in industry.

Cleaver stated that he visited the Barmet plant to investigate the death of William Clark and to determine its cause. In the course of his investigation he took measurements and spoke to John Grunigen, Orbie Baize, and Cecil Eaden. From his investigation, he learned that Clark was helping Leo Johnson position a sheet of metal against the building when the accident occurred. Clark was standing on the forks of a truck upon which the sheet of metal was resting. He was holding an impact wrench and a drill either in his hand or by their electrical cord. Johnson was on the third girder of the skeletal structure of the building holding the top of the metal sheet. As Clark touched the metal sheet, he and Johnson received a shock which continued until Clark fell from the forks onto the ground.

Cleaver tested the tools on November 23, 1977, which he suspected were the cause of the accident. The drill which was double insulated was dismissed by him as a cause of the accident after the test. The impact wrench, however, was found to have a small leakage of electricity. This tool

showed a resistance from the plug to the case of 80,000 ohms which meant that it would allow a flow of up to 1-1/2 milliamps. This was sufficient to cause a painful shock but not a lethal one.

Cleaver examined the tools and extension cords. He found dried mud on them and on this basis concluded that they were wet and muddy at the time of the accident. Cleaver also found the ground plug on one of the extension cords missing. Cleaver also conducted tests on the structure of the building and found little resistance to electricity.

On the basis of his findings, Cleaver concluded that Clark was fatally electrocuted when he touched the metal sheet. This permitted the electricity leaking from the impact wrench to run through the sheet to Johnson, then onto the structure of the building and through the structure to the ground. The electricity originated from a ground fault in the impact wrench. This ground fault was not "abated by a viable ground" leading to the overcurrent devices because of the missing ground plug on one of the extension cords.

Based on the evidence furnished to him, Cleaver dismissed the structure of the building as a source of the electricity which caused the fatality. He said, that the low resistance to electricity that he found in the building indicated it would serve to ground electricity. Cleaver admitted that he did not examine the raceways, and did state that deteriorated raceways should not be relied upon to carry electricity.

Cleaver also dismissed or discounted the statement by Higdon's employees that they had been shocked while working on the building prior to the accident. In Cleaver's opinion, he did not see how that could be possible under the conditions the employees described. Cleaver did state, though, that he was unaware of the existence of a conduit in the area where at least one of the employees had reported receiving an electrical shock and admitted that this could be significant.

JOHN A. GRUNIGEN, JR.

John A. Grunigen, Jr., testified that he was an industrial engineer and was employed as Barmet's plant manager. His testimony concerning his education, background and experience in the hearing in Docket 402 was incorporated into the record of this case.

Grunigen first testified about the three electrical cables to the blower motors on the dust collector. The Compliance Officer had cited them because they were not grounded. Grunigen stated that these were temporary lines being used until a conduit which normally carried the electric wires to the motors was repaired. He also stated that both Coomes and Davis had been informed of the temporary nature of the wires and that since the inspection the conduit has been installed and the wires removed.

Concerning the citation involving the electric cord to the air conditioner, Grunigen admitted that it had been spliced in order to reach a receptacle. Grunigen noted, however, that the plant had been inspected on two occasions previous to the inspection from which the citation in question was issued. The first inspection was made by the state on May 18, 1977, and the second was made in June by a Federal official. In neither of the previous inspections were the cables to the blower motors or the electric cord to the air conditioner cited as being in violation of the Act.

Grunigen stated that Higdon had been employed to replace some girds and sheeting that had been blown free by strong winds during the week just prior to the July 4 holiday weekend. They were also replacing some undamaged sheeting which was not as long as the new sheets and some others sheets which had not been properly installed originally. The work began on Thursday, July 7, and on that day one or more Higdon employees reported receiving electrical shocks from the building. This information was given to the plant electrician who deactivated the circuits serving the side of the building where Higdon was working. The accident in which Clark was killed occurred

on the following Monday and the circuits were still deactivated at that time.

On the day of the inspection Grunigen stated that the same circuits remained deactivated, but although he was with the Compliance Officer Coomes, and with Davis when they inspected the breakers, he did not inform them they had been deactivated. When asked why he failed to inform them, Grunigen stated that he understood from Coomes and Davis that the tag or a lockout device was required whenever a switch was turned off. Although, he did not say it specifically, Grunigen implied that he understood Coomes and Davis interpretation of the applicable standard to be that the tags or lockout devices were required whether a circuit breaker was disconnected or deactivated.

Grunigen testified that the circuits that were turned off were connected to conduits which ran along the wall on which Higdon's men were working. There were, however, other conduits along that wall connected to circuit breakers which remained energized.

With respect to the raceways, Grunigen denied that they were in a deteriorated condition. He stated that the processing operation results in flying minute particles which "strike off" the metal coating on the raceway and the metal sheeting, and that materials within the aluminum oxide being processed causes the metal to rust. However, if the exterior oxidation or rust is scraped off, the raceway beneath it is intact.

Grunigen stated that since September, after the accident, the company has been replacing the conduits with a new type that contains a ground carrying line within them. One of the conduits being replaced contained a broken "T" at the time of the inspection which presented a potential hazard to employees and might have been the reason Davis obtained a slow response reading on the ground loop impedance meter which he used. A second conduit, also being replaced, presented a hazard to employees, but aside from these

two, Grunigen was unaware of any other potential electrical hazard in the area.

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Grunigen also testified about the accident. He stated that when it occurred he and Orbie Baize were coming from another area of the plant when they heard someone shout that a man had been electrocuted. They later learned that Caldwell was the man who shouted. When they arrived at the scene, Clark was lying on the ground which was very wet and muddy and Clark was also wet and muddy. Grunigen sent Baize to call an ambulance and get oxygen, and he began mouth to mouth resuscitation which he continued until Baize returned with oxygen.

While they were working on Clark, Johnson told them how the accident occurred. He stated to them that Clark leaned forward and the tools in his hand touched the metal sheet they were installing. When they did, Johnson stated he received a shock.

Caldwell also told them about the accident. He stated that after he handed the drill to Clark, he plugged in the "Y" connection and the extension cord. When he saw something was wrong he pulled them apart.

Grunigen described the tools when he saw them. He stated that they lay in the mud about 15 minutes before being picked up. When they were picked up they were wet and muddy. The extension cords were also lying in the mud and they were wet and muddy. When he examined the extension cords, he found one ground lug was missing.

HUGH CARROLL CESSNA

Hugh Carroll Cessna testified that he was the Maintenance Lead Man for Barmet. He is responsible for assigning jobs to the maintenance men. On the day of the accident he and the other members of the maintenance crew were installing a new hopper on the dust collector when they saw Clark lying on the ground.

Cessna stated that he started to call an ambulance, but that Grunigen told him that Orbie Baize had done so. Later after they had removed Clark

he spoke to Leo Johnson about the accident. However, when he sought to relate the conversation, the Commissioner objected and the objection was sustained.

CECIL D. EADEN

Cecil D. Eaden testified that he was the maintenance electrician for Barmet. He stated that he has worked in the electrical field practically all of his life. Before working for Barmet, he worked for Kentucky Utilities, Griffen Electric, Thomas Industries and Aluminum Service Corporation. As maintenance electrician his job is to maintain and repair the electrical equipment in the plant, including the raceways and circuit breakers.

Eaden stated that he repaired some damage during the week following the July 4 weekend. The damage was caused when some siding was blown off the side of the building and knocking out a light.

Eaden also recalled that he received a complaint from Leo Johnson, Higdon's foreman, that his men had gotten a shock from the side of the building where they were working. The complaint was made on Thursday and Eaden stated that he turned two circuit breakers off. He identified the breakers as numbers 14 and 16. On the following Saturday he completely disconnected number 16 and it has remained disconnected. However, after inspecting number 14, he found nothing wrong with it and put it back in service.

When Coomes made his inspection, Eaden stated that he was doing some work on the number 14 circuit and had turned it off. He had not, however, disconnected it, nor had he attached any device, such as a "Do Not Start" tag, to it. He said that since he was the one who primarily worked on the equipment, it was not customary to use such tags.

Eaden also testified about the function and condition of the conduits. He said that the conduits functioned as a ground. He also said that a conduit was broken in one place, but that did not create a hazard because the circuit remained grounded.



ORBIE L. BAIZE

Orbie L. Baize stated that he was the Maintenance Foreman for Barmet and prior to that had been the Maintenance Foreman for Aluminum Service Corporation. As Maintenance Foreman he was familiar with the conduits and raceways and that there had been some damage to them from wind, but otherwise they were in good condition. So far as he knew, they presented no hazard in June and July, 1977.

FINDINGS OF FACT

Barmet operates a manufacturing plant in Livia. On July 13, 14 and 25, 1977, the plant was inspected by Stephen Coomes, a Compliance Officer employed by the Commissioner. Coomes was accompanied during the inspection by Mark Wade, a Compliance Officer trainee, and Louis Davis who is an electrical specialist employed by the Commissioner. The inspection was a fatality inspection occasioned by the death of William Clark, an employee of Higdon Contracting Co., a contractor employed by Barmet to install metal siding on the plant's exterior walls. Clark was electrocuted when he touched a sheet of metal siding which had apparently become energized while being installed. Prior to the electrocution of Clark, other employees had received minor electric shocks while working on the plant building.

Although, Coomes primary purpose was to investigate the fatality, in the course of his investigation he also observed four conditions not related to the fatal accident, which he deemed were nonserious violations of the Act. The first involved three electrical cables to the blower motors on a dust collector. These cables were being used temporarily while the conduit which normally carried the electricity to the motors was being repaired. The cables were not equipped with ground conductors.

The second condition cited involved an air conditioner in the plant office. The electric cord on the air conditioner was not long enough to reach the electric socket, and in order to plug it in a section of additional electric cord had been spliced to the original cord. This condition had

existed since prior to the earlier inspection of the plant, but had never been cited.

The third condition observed was an acetylene tank in a rack outside the plant's maintenance office. This tank was not equipped with a valve protection cap.

The fourth condition involved an industrial truck at the plant. At the time of the inspection, the truck had been left running unattended.

Barnet was also cited for two serious violations of the Act. The first involved the failure to attach "Do Not Start" tags or other similar devices to switches controlling electric circuits which were turned off to make repairs on machinery or the electrical equipment itself. At the time of the inspection, two circuits had been turned off. One of these circuits had been deactivated by removing the electrical wires to it. That circuit, could not be energized simply by turning the switch to the on position. The other circuit, however, had simply been deenergized by turning the switch off. In both cases, "Do Not Start" tags or similar devices were not attached to the switches because it was not customary in the plant to do so.

The second condition cited as a serious violation of the Act involved the metal raceways in the plant. The raceways were defined as the electrical conduits, switch boxes, circuit breakers and other equipment used to conduct electricity through the plant. In addition to carrying the wires, the raceways were used as the sole means of grounding the system. However, the processing operations at the plant had a corrosive effect upon the metal raceways which raised their impedance level and impaired their ability to ground the circuits. Tests of the circuits to determine the level to which their impedance was impaired was conducted by the Compliance Officer, an electrical specialist for the Commissioner, an electrical engineer for Barnet and the plant electrician. Except for the Compliance Officer, they all found the impedance to be within allowable limits. The Compliance Officer made no record of his findings, but believed that they showed an impedance level in excess of the amount allowed.

In at least one instance, a section of a conduit was missing so that the circuit of which it was a part, if activated, did not have a continuous ground throughout. However, during the week preceding the accident two circuits which supplied electricity along the walls where the broken conduit was found, had been deactivated. One of these circuits was activated on Monday of the week of the accident, but it was not shown whether the broken conduit was part of the reactivated circuit.

The Compliance Officer proposed a penalty of \$950.00 for the serious violations. The penalty was in accordance with guidelines established by the Commissioner for its compliance officers to follow in assessing penalties. Under these guidelines, a serious violation is assessed an unadjusted penalty of \$1000.00. This may be reduced by up to 20% for good faith shown by the employer in complying with the Act, up to 20% for the history of the employer in complying with the Act, and up to 10% for size of the employer in terms of the number of employees.

In this case, the Compliance Officer allowed no credit for good faith or history, because he felt that Barmet's safety and health program had been ineffective, and because Barmet had been inspected on previous occasions and had been cited. However, 5% was allowed for size because Barmet had between 20 and 99 employees. This reduced the unadjusted penalty to \$950.00 the amount proposed in the citation.

#### CONCLUSIONS OF LAW

Article 250-42(f) of the National Electric Code provides:

Fixed Equipment, General. Exposed noncurrent-carrying metal parts of fixed equipment that are likely to become energized under abnormal conditions shall be grounded under any of the following conditions . . . .

Where equipment operates with any terminal in excess of 150 volts to ground.

The condition cited as in violation of this section was the absence of any ground conductor running with three electrical cables for the blower motors on a dust collector. The record does not show whether the equipment

operated "with terminals in excess of 150 volts to ground" as alleged in the citation and as required by the Code. Therefore, the citation for a violation of this section should be dismissed.

Article 400-5 of the National Electrical Code provides:

Flexible Cords and Cables . . . . Use and Installation  
. . . Splices. Flexible cord shall be used only in  
continuous lengths without splice or tap.

The condition cited as in violation of this section involved an electric cord for an air conditioner which had been spliced in order to lengthen it. This is a clear violation of the section. Barmet maintains, however, that this condition existed when earlier OSHA inspections were made by both Federal and State officials and had never been cited. Therefore, Barmet contends a citation now is improper.

Compliance officers are required to cite all violations which they find. Obviously, a compliance officer may not find all violative conditions during the course of his inspection. To preclude a later citation for a violative condition because it was not cited as a result of an earlier inspection would undermine the basic purpose of the act which is to require that all employers furnish their employees safe places of employment. Therefore, the citation for violation of this section of the Code should be sustained.

29 CFR 1910.252(a)(2)(ii)(d):

Welding, Cutting and Brazing . . . . Installation and operation of oxygen-fuel gas systems for welding and cutting . . . . Cylinders and containers . . . . Storage of cylinders . . . . Valve protection caps, where cylinder is designed to accept a cap shall always be in place, hand tight, except when cylinders are in use or connected for use.

The condition giving rise to this citation was the absence of a valve protection cap on an acetylene storage cylinder which was stored in a rack near the maintenance office. The record does not disclose whether the particular cylinder observed was "designed to accept a cap" and therefore, this citation should be dismissed.

29 CFR 1910.178(m)(5)(i) provides in part:

Powered industrial trucks . . . . Truck operations  
. . . . ~~When a powered industrial truck is left~~  
unattended . . . . power shall be shut off.

The condition cited as violative of this standard was an industrial truck observed with its motor running while unattended. This is a violation of the standard and the citation should be sustained.

29 CFR 1910.145(f)(3)(iii) provides:

Speculation for accident prevention signs and tags . . . . Accident prevention tags . . . .  
Do not start tags . . . . Do not start tags shall be placed in a conspicuous location or shall be placed in such a manner that they effectively block the starting mechanism which would cause hazardous conditions should the equipment be energized.

The specific conditions which the Compliance Officer found in violation of this standard involved two circuit breakers. One had been "deactivated" that is to say it had been completely disconnected, but the other had simply been "deenergized" by turning the switch off. During the course of the hearing it was learned that it was customary not to use "Do Not Start tags" or similar devices whether a circuit was deactivated or deenergized.

The failure to use "Do Not Start tags" on deactivated circuits was not a violation of the Act since the it was unlikely that such circuits would be energized accidentally. To energize such a circuit requires removing the panel, connecting the wires, and then replacing the panel. The same is certainly not true of a "deactivated circuit". All that is necessary to energize it is to turn the switch. Therefore, the failure to use such tags on deenergized circuits was a violation of the standard. Further, in view of the hazard presented, it is a serious violation.

Article 250-51 of the National Electrical Code provides:

Effective Grounding . . . . The path to ground from circuits, equipment and conductor enclosures shall

(1) be permanent and continuous and (2) shall have ample carrying capacity to conduct safely any current liable to be imposed on it, and (3) shall have impedance sufficiently low to limit the potential above ground and to facilitate the operation of the overcurrent devices in the circuit.

This citation was based on the condition of the metal raceways in the plant which serve as the ground for the electrical equipment. The Compliance Officer found these raceways to be corroded thereby impairing their ability to safely conduct the electric currents liable to be imposed on them if a ground fault should occur in the system. Furthermore, in at least one instance, a section of metal conduit which formed a part of the raceway system was missing thereby breaking the continuity of the system at that point. Tests performed, however, indicated that the circuits tested had an impedance level within acceptable limits and it was not shown that the circuit containing the broken conduit was active. Therefore, it was not established that the conditions observed violated the Article and the citation should be dismissed.

In the companion case, KOSHRC 402, it was concluded that the amount of the penalty proposed in the citation seemed excessive and not in accordance with the Commissioner's own guidelines. Although the contests involve separate citations, the inspections out of which they arise were conducted within two weeks of one another. Therefore, it would seem that the same adjustment factors should be used and the amount of the penalty should also be the same for the serious violation sustained. In Docket 402 a \$750.00 penalty was proposed, and the recommended decision lowered it to \$650.00. The penalty proposed here for violation of 29 CFR 1910.145(f)(3)(iii) should also be reduced to \$650.00.

#### RECOMMENDED DECISION

NOW, THEREFORE, upon the basis of the foregoing Findings of Fact, Conclusions of Law and upon the entire record,

IT IS HEREBY ORDERED

That the citation charging a nonserious violation of Article 250-42(f) of the National Electrical Code, as adopted by 29 CFR 1910.309(a) (as adopted by 803 KAR 2:020) be, and is hereby, dismissed.

That the citation charging a nonserious violation of Article 400-5 of the National Electrical Code, as adopted by 29 CFR 1910.309(a) (as adopted by 803 KAR 2:020) be, and is hereby, sustained.

That the citation charging a nonserious violation of 29 CFR 1910.252(a) (2)(ii)(d) (as adopted by 803 KAR 2:020) be, and is hereby, dismissed.

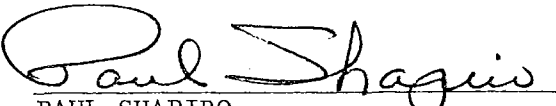
That the citation charging a nonserious violation of 29 CFR 1910.178(m) (5)(i) (as adopted by 803 KAR 2:020) be, and is hereby, sustained.

That the citation charging a serious violation of Article 250-51 as adopted by 29 CFR 1910.309(a) (as adopted by 803 KAR 2:020) be, and is hereby dismissed.

That the citation charging a serious violation of 29 CFR 1910.145(f) (3)(iii) (as adopted by 803 KAR 2:020) be, and is hereby sustained.

That penalty proposed for the serious violations be and is hereby reduced from \$950.00 to \$650.00.

BE IT FURTHER ORDERED that the citations sustained shall be abated and that the penalty paid, without delay, but no later than 30 days from the receipt hereof.

  
PAUL SHAPIRO  
HEARING OFFICER  
KOSHRC

DATED: January 31, 1979  
Frankfort, Kentucky

Decision No. 673