

UNITED STATES DISTRICT COURT
DISTRICT OF OREGON
PORTLAND DIVISION

UNITED STATES OF AMERICA

3:18-cr-

00168-HZ

v.

INDICTMENT

DENNIS G. MERKEL,

18 U.S.C. §§ 1031 & 2

Defendant.

THE GRAND JURY CHARGES:

At all times material to this Indictment, unless a specific date is noted:

INTRODUCTION

Entities and Individuals

1. Company A was an Oregon corporation headquartered in Rosemont, Illinois, that manufactured aluminum “extrusions” in specific shapes for use in a variety of applications, including aeronautic uses such as rockets and military hardware. Company A operated a variety of facilities, including Plant A, a facility located in and around Portland, Oregon. In or about 2000, Company A acquired Plant A, which specialized in smaller extrusions.

2. Defendant **DENNIS G. MERKEL** (“**MERKEL**”) was the Plant A production manager for Company A and its predecessors from in or about 1986, through in or about February 2009. **MERKEL**’s responsibilities included overseeing production at Plant A, as well

as reviewing and approving results of testing done on aluminum extruded at Plant A before the product was sent to customers.

3. J.E. was the Plant A quality control manager for Company A and its predecessors from in or about 1994, through in or about 2002. J.E. began working at Plant A in or about 1986, left in or about 2002, and returned from in or about 2003, through in or about 2007. J.E.'s responsibilities over time at Plant A included extruding aluminum, inspecting it, cutting samples for testing, and reviewing and approving results of testing done on that product before it was sent to customers.

4. R.K. is the Plant A quality control manager for Company A. R.K. began working at Plant A in the quality department in 1992, and R.K. took over the quality control manager role from J.E. in 2002. R.K.'s responsibilities over time at Plant A included inspecting aluminum and reviewing and approving results of testing done on that product before it was sent to customers.

5. T.G. was **MERKEL**'s administrative assistant at Plant A from in or about 1988, through in or about 2007. T.G.'s responsibilities over time at Plant A included purchasing, invoicing, shipping, payroll, sending extrusion samples for mechanical properties testing, and typing test certificates to be sent to customers.

Company A's Role as a Supplier to the United States

6. On or about October 28, 1998, the United States, specifically the National Aeronautics and Space Administration ("NASA"), in a procurement of property and services, awarded prime contract number NAS10-99005 ("Contract 9005"), which is in excess of \$1 million, to Customer A. On or about April 2, 2002, Customer A purchased aluminum extrusions from Company A in connection with Contract 9005.

7. On or about January 1, 2001, the United States, specifically the United States Missile Defense Agency (“MDA”), in a procurement of property and services, awarded prime contract number HQ0006-01-C-0001 (“Contract 0001”), which is in excess of \$1 million, to Customer B. On or about April 9, 2002, through a series of subcontracts in connection with Contract 0001, Customer C, a Customer B subcontractor, purchased aluminum extrusions from Company A.

8. The prime contracts and subcontracts associated with Contracts 9005 and 0001 required that the aluminum extrusions provided to NASA and MDA be certified to meet certain mechanical properties specifications, including those set by SAE International Group (“SAE”), an independent organization that sets mechanical properties specifications (“AMS specifications”) for aluminum to encourage consumer confidence in the integrity, consistency, and reliability of the material. NASA and MDA relied on the accuracy of Company A’s certifications.

9. Both Contract 9005 and Contract 0001 called for the use of an aluminum “frangible joint” in rockets provided to NASA and MDA, respectively. The “frangible” (*i.e.*, fragile or brittle) joint included an aluminum extrusion into which a mild explosive charge and other parts are inserted after production. The purpose of the frangible joint was to break open upon detonation of the mild explosive charge, allowing either a portion of the rocket to break away or a payload (such as a satellite) to be deployed. The reliability of the frangible joint in serving its intended function depends in part on the mechanical properties of the aluminum extrusion used.

10. The aluminum extrusions provided by Company A to Customer A and in turn to NASA on Contract 9005 were used on frangible joints for NASA rocket launches in February 2009, and March 2011.

11. The aluminum extrusions provided by Company A to Customer C and in turn to MDA on Contract 0001 were used on frangible joints on MDA missiles designed to intercept incoming intercontinental ballistic missiles.

Company A's Manufacturing, Testing, and Certification of Aluminum Extrusions

12. Company A produced its aluminum extrusions by pushing aluminum billets (*i.e.*, aluminum in a round, square, rectangular, or hexagonal bar shape) at different speeds and temperatures through dies to produce specific shapes needed by particular customers. Depending on the mechanical properties requirements needed, the extrusions were then quenched (*i.e.*, rapidly cooled either by misting water on them, blowing air on them, or both) and stretched to ensure straightness. In some instances, the extrusions were then put through an artificial aging process (*i.e.*, the metal is placed into a large oven at different temperatures and for different lengths of time) to ensure that the extrusions reached the required temper.

13. Company A produced its aluminum extrusions in a variety of alloys (specific chemical combinations of different metals) and tempers (which designate how the metal is treated immediately after its creation). ASTM International ("ASTM") and SAE set different mechanical properties specifications and testing processes for different combinations of aluminum tempers and alloys. These specifications and processes were designed to ensure that the aluminum met a certain threshold level of consistency and reliability.

14. Depending on the particular customer that ordered aluminum extrusions from Company A, Company A generally certified that its products met a variety of ASTM or AMS specifications. Those included ASTM or AMS specifications for three mechanical properties: yield strength, ultimate tensile strength, and elongation. These three mechanical properties are measured through a process called “tensile testing,” in which a small sample of an aluminum extrusion is slowly stretched and then ripped apart by a machine, which measures the force applied to the sample at each stage of the test.

15. In the tensile testing process, yield strength (“yield”) is the point at which the aluminum extrusion sample becomes permanently and irreversibly deformed. Ultimate tensile strength (“UTS”) is a calculation of the maximum amount of stress the sample can sustain before it breaks. Elongation is the increase in the length of the aluminum extrusion sample before it breaks during tensile testing.

16. Plant A generally conducted its tensile testing by sending a sample of the extrusion to an internal testing lab at another facility within Company A. Plant A employees included a “Samples” form that listed, among other things, the sample identification number and customer name.

17. After the lab completed the tensile testing on the sample, the lab technician filled out the remaining fields on the Samples form, which included the yield, UTS, and elongation test results. The lab then faxed the Samples form back to Plant A, where a Plant A employee, generally **MERKEL**, would review the test results on the Samples form. **MERKEL**, J.E., R.K., or another Plant A employee would then determine whether the tensile test results met the applicable ASTM or AMS specifications and could be sent to the customer, or alternatively,

whether re-testing or scrap of the aluminum was required in accordance with ASTM or AMS specifications. If aluminum was scrapped, it would result in additional cost to, and reduced profits for, Company A.

18. In certain instances, Plant A would also send samples for tensile testing to External Lab A. External Lab A employees would in turn perform tensile testing on the sample and record the results on an External Lab A certification, which was then sent back to Company A. At times, those certifications included banners in all uppercase letters such as: (a) "This certificate shall not be reproduced except in full, without our written approval"; and (b) "The recording of false, fictitious, or fraudulent statements or entries on this certificate may be punished as a felony under federal law."

19. After **MERKEL**, J.E., R.K., or another Plant A employee reviewed the test results on the internal testing lab's Samples form or on the certification from External Lab A, they would provide the results to T.G., an administrative assistant at Plant A. T.G. would then type the test results onto a Company A test certificate, which was then signed by J.E., R.K., or another Plant A employee. The Company A test certificate was included on the invoice that was shipped with the aluminum extrusion orders to Company A's customers, including Customers A and C.

COUNTS 1 AND 2
(Major Fraud Against the United States)
(18 U.S.C. §§ 1031 & 2)

20. The allegations in paragraphs 1 through 19 of this Indictment are realleged.

21. From in or around at least May 1996, and continuing through in or about December 2006, in the District of Oregon and elsewhere, defendant **DENNIS G. MERKEL** and

unindicted Plant A employees J.E., R.K., and T.G., knowingly executed, attempted to execute, and caused to be executed a scheme and artifice with the intent to defraud the United States and to obtain money and property by means of material false and fraudulent pretenses, representations, and promises, in any contract, subcontract, and other form of Federal assistance, and in any procurement of property and services as a subcontractor and supplier on a contract in which there is a prime contract with the United States, where the value of such contract, subcontract, and other form of Federal assistance, and any constituent part thereof, is \$1,000,000 or more.

The Purposes of the Scheme and Artifice

22. The purposes of the scheme and artifice were for **MERKEL** and the unindicted Plant A employees J.E., R.K., and T.G. to (a) conceal failing tensile test results of aluminum extrusions produced and shipped by Company A to its customers, including the United States and Customers A and C, by altering failing tensile test results on those extrusions; (b) increase Company A's profits and productivity by preventing delays in production and the costly scrapping of metal; and (c) obtain bonuses from Company A, which were calculated in part based on a production metric.

The Scheme and Artifice

23. The scheme and artifice consisted of, but were not limited to, the following:

A. Falsifying tensile test results on Samples forms on hundreds of occasions by making handwritten alterations to failing test numbers to make them appear to be passing numbers, and by whiting out failing numbers;

B. Falsifying tensile test results provided by External Lab A by making handwritten alterations to failing numbers to make them appear to be passing numbers, and by whiting out failing numbers;

C. Causing T.G. and other Plant A employees who reported to **MERKEL** to type falsified yield, UTS, and elongation test results onto Plant A test certificates to be provided to Company A customers;

D. Causing J.E., R.K., and other Plant A employees to sign invoices accompanying falsified Plant A test certificates, which invoices falsely claimed, "We hereby certify that the above material has been inspected and tested in accordance with, and has been found to meet the applicable requirements for the material including any specifications forming a part of the description"; and

E. Causing the invoices containing the falsified Plant A test certificates to be shipped with aluminum extrusion orders to Company A's customers.

Execution of the Scheme and Artifice

24. On or about the dates specified below, within the District of Oregon and elsewhere, defendant **MERKEL**, executed and attempted to execute the scheme and artifice as described above by:

Count	Approximate Date	Execution
1	5/20/02	Sending and causing to be sent a Plant A test certificate containing falsified mechanical properties test results to Customer A as part of a shipment of product in connection with Contract 9005, in order to receive payment for that product

2	5/20/02	Sending and causing to be sent a Plant A test certificate containing falsified mechanical properties test results to Customer C as part of a shipment of product in connection with Contract 0001, in order to receive payment for that product
---	---------	---

In violation of Title 18, United States Code, Sections 1031 and 2.

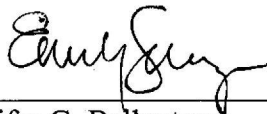
Dated: April 17, 2018

A TRUE BILL

OFFICIATING FOREPERSON

Presented by:

Sandra Moser
Acting Chief, Fraud Section
Criminal Division, U.S. Department of Justice



Jennifer G. Ballantyne
Emily Scruggs
Trial Attorneys, Fraud Section