

**Section 232 Investigation into Imports of Electrical Steel and Transformer-Related Products**



**SCOPE OF ASSESSMENT**

The U.S. Department of Commerce, Bureau of Industry and Security (BIS), Office of Technology Evaluation (OTE), is conducting a survey of the U.S. grain-oriented electrical steel (GOES) industry and related transformer parts sector. Specifically, this survey is intended for companies that import, distribute, or produce laminations for stacked cores for incorporation into transformers, stacked and wound cores for incorporation into transformers, electrical transformers, and transformer regulators markets. The survey results will be used to support an ongoing investigation on the effect of imports of GOES and select downstream GOES products on the U.S. national security initiated under Section 232 of the Trade Expansion Act of 1962, as amended.

The principal goal of this survey is to assist the U.S. Department of Commerce in determining whether electrical steel and transformer-related products are being imported into the United States in such quantities or under such circumstances as to threaten to impair the national security. Information collected will include facilities and production data, capacity utilization, mergers and acquisitions, joint ventures, customers, sales and demand data, employment information, conditions of domestic and global competition, research and development, and other factors. The resulting data will provide the U.S. Department of Commerce detailed steel industry information that is otherwise not publicly available and needed to effectively conduct this Section 232 investigation.

**RESPONSE TO THIS SURVEY IS REQUIRED BY LAW**

A response to this survey is required by law (50 U.S.C. Sec. 4555). Failure to respond can result in a maximum fine of \$10,000, imprisonment of up to one year, or both. Information furnished herewith is deemed confidential and will not be published or disclosed except in accordance with Section 705 of the Defense Production Act of 1950, as amended (50 U.S.C. Sec. 4555). Section 705 prohibits the publication or disclosure of this information unless the President determines that its withholding is contrary to the national defense. Information will not be shared with any non-government entity, other than in aggregate form. The information will be protected pursuant to the appropriate exemptions from disclosure under the Freedom of Information Act (FOIA), should it be the subject of a FOIA request.

Notwithstanding any other provision of law, no person is required to respond to nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number.

**BURDEN ESTIMATE AND REQUEST FOR COMMENT**

Public reporting burden for this collection of information is estimated to average 10 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information to BIS Information Collection Officer, Room 6883, Bureau of Industry and Security, U.S. Department of Commerce, Washington, D.C. 20230, and to the Office of Management and Budget, Paperwork Reduction Project (OMB Control No. 0694-0120), Washington, D.C. 20503.

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**BUSINESS CONFIDENTIAL - Per Section 705(d) of the Defense Production Act**

**General Instructions**

Your organization is required to complete this survey of the U.S. electrical steel and transformer-related products industry, which can be downloaded from the BIS website: <http://www.bis.doc.gov/XXX>

A. If you are unable to download the survey document, at your request, BIS survey support staff will e-mail the Excel survey template directly to you.

For your convenience, a PDF version of the survey and required drop-down content is available on the BIS website to aid internal data collection. **DO NOT SUBMIT** the PDF version of the survey as your response to BIS. Should this occur, your organization will be required to resubmit the survey in the requested Excel format.

Respond to every question. Surveys that are not fully completed will be returned for completion. Use the comment boxes to provide any information to supplement responses provided in the survey form. Make sure to record a complete answer in the space provided, even if the space does not appear to expand to fit all of the information.

B. **DO NOT CUT AND PASTE RESPONSES WITHIN THIS SURVEY OR PASTE IN RESPONSES FROM OUTSIDE THE SURVEY.** Survey inputs should be completed by typing in responses or by using a drop-down menu. The use of cut and paste can corrupt the survey template. If your survey response is corrupted as a result of cut and paste response, your survey will be rejected and your organization must immediately resubmit the survey.

C. **Do not disclose any USG classified information in this survey form.**

D. Upon completion of the survey, final review, and certification, **transmit the survey document via e-mail to:**  
[ESproducts232@bis.doc.gov](mailto:ESproducts232@bis.doc.gov)

Questions related to the survey should be directed to BIS survey support staff at [ESProducts232@bis.doc.gov](mailto:ESProducts232@bis.doc.gov)

E. E-mail is the preferred method of contact.

You may speak with a member of the BIS survey support staff by calling (202) 482-4952.

For questions related to the overall scope of this Section 232 Investigation, contact [ESProducts232@bis.doc.gov](mailto:ESProducts232@bis.doc.gov) or:

F. Matthew Borman, Deputy Assistant Secretary of Commerce, Export Administration  
Acting Director, Office of Technology Evaluation, BIS, Room 1093  
U.S. Department of Commerce  
1401 Constitution Avenue, NW  
Washington, DC 20230

**DO NOT** submit completed surveys to Mr. Borman's postal or personal e-mail address. All surveys must be submitted electronically to:  
[ESproducts232@bis.doc.gov](mailto:ESproducts232@bis.doc.gov)

**Definitions**

<b>Term</b>	<b>Definition</b>
Applied Research	A systematic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met. This activity includes work leading to the production of useful materials, devices, and systems or methods, including design, development, and improvement of prototypes and new processes.
Authorizing Official	An executive officer of the organization or business unit or another individual who has the authority to execute this survey on behalf of the organization.
Basic Research	A systematic, scientific study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and of observable facts.
Capital Expenditures	Investments made by an organization in buildings, equipment, property, and systems where the expense is depreciated. This does not include expenditures for consumable materials, other operating expenses, and salaries associated with normal business operations.
Cores (Stacked)	Layers of laminations of electrical steel that have been stacked together to form a transformer core, typically used in larger distribution and power transformers. The stacked cores relevant to this investigation are classified under HTSUS 8594.90.9638
Cores (Wound)	A transformer core that is comprised of a continuous length of electrical steel wound around a mandrel multiple times, which is then heat treated to relieve internal stresses. Wound cores are often used in smaller distribution transformers that step down the voltage. Wound cores relevant to this investigation are classified under HTSUS 8504.90.9642.
Customer	Any organization (external or internal entity) for which your organization manufactures/processes any product comprised of, or containing, steel in any form.
Defense-related Activities	Any product or service that your organization produces that is ultimately used by the U.S. Government for defense purposes, whether by the armed services, the Department of Defense, or any other U.S. Government entity.
Development	The design, simulation, and testing of a prototype, including experimental software or hardware systems, to validate technological feasibility or concept of operation in order to reduce technological risk, or provide test systems prior to production approval.
Electrical Steel	Electrical steel, also called lamination steel, silicon electrical steel, or transformer steel is specialty steel tailored to produce certain magnetic properties, such as small hysteresis area and high permeability.
Exports	Shipments to destinations outside the United States.
Facility	A building or the minimum complex of buildings or parts of buildings that conduct steel production, in which an organization operates to serve a particular function, producing revenue, and incurring costs for the company. A facility may produce an item of tangible or intangible property or may perform a service. It may encompass a floor or group of floors within a building, a single building, or a group of buildings or structures. Often, a facility is a group of related locations at which organization employees work, together constituting a profit-and-loss center for the company, and it may be identified by a unique DUNS number.
Full Time Equivalent (FTE) Employees	Employees who work for 40 hours in a normal work week. Convert part-time employees into "full time equivalents" by taking their work hours as a fraction of 40 hours.
Global Headquarters	A location that serves as the organization's hub of worldwide operations with all global branches or divisions reporting to it.

Definitions	
Term	Definition
Grain-Oriented Electrical Steel (GOES)	<p>Also called Cold Rolled Grain Oriented Steel (CRGO), a flat-rolled alloy steel product which has is specially processed so that optimal properties are developed in the rolling direction; containing by weight at least 0.6 percent but not more than 6 percent of silicon (typically 3.2%), not more than 0.08 percent of carbon, not more than 1.0 percent of aluminum, and no other element in an amount that would give the steel the characteristics of another alloy steel, in coils or in straight lengths. GOES is typically available in thicknesses of 0.23 mm, 0.27mm, 0.30mm, and 0.35mm (called M3, M4, M5 and M6, respectively). The lower the thickness, the better the quality of material in terms of core losses (eddy current loss and hysteresis loss). GOES that is relevant to this investigation is currently classifiable under subheadings 7225.11.0000, 7226.11.1000, 7226.11.9030, and 7226.11.9060 of the Harmonized Tariff Schedule of the United States (HTSUS).</p>

Definitions	
Term	Definition
Harmonized Tariff Schedule (HTS)	A 10-digit numbering system that classifies a good based on its name, use, and/or the material used in its construction. The number provides Customs and Border Protection (CBP) with a standardized method of tracking all merchandise imported into the United States and sets out the tariff rates and statistical categories.
Import Value	Values reported should be landed, duty-paid values at the U.S. port of entry, including ocean freight and insurance costs, brokerage charges, and import duties (i.e., all charges except inland freight in the United States).
Inventory	The goods or materials an organization holds for its own use or for the ultimate goal of sale.
Laminations	Flat rolled products, not in coils, made from electrical steel, that have been cut to a shape and undergone punching, coating, or other operations for their use as part of a transformer and are classified under HTSUS 8504.90.9634
Non-Oriented Electrical Steel (NOES)	Also called Cold Rolled Non-Grain Oriented Steel (CRNGO), is electrical steel typically with a silicon level of 2 - 3.5% and have similar magnetic properties in all directions of the plane of the sheet. NOES is principally used for motors, generators, alternator, ballasts and small transformers. NOES is covered by HTSUS Codes 7225.19.0000 , 7226.19.1000, and 7226.19.9000.
Non-U.S. Facility	A facility that is physically located outside of the United States.
Organization	A company, firm, laboratory, or other entity that owns or controls one or more U.S. establishment or facility capable of designing and/or manufacturing steel products.
Product/Process Development	Conceptualization and development of steel product or steel production techniques prior to the production of the product for customers (i.e., utilities, governmental agencies etc.).
Production	The process of transforming inputs (raw materials, semi-finished goods, subassemblies, ideas, information, knowledge) into goods or services.
Research & Development	Basic and applied research in the engineering sciences, as well as design and development of prototype products and processes. Efforts that an organization conducts towards innovating, introducing and/or improving products and processes.
Sales	All reported and unreported sales of steel, including sales to end-users, producers, financial entities, intermediaries, traders, distributors, et al.
Supplier	An entity from which your organization obtains inputs, which may be goods or services. A supplier may be another organization with which you have a contractual relationship, or it may be another facility owned by the same parent organization.
Transformer	An electrical apparatus that transfers electrical energy from one electrical circuit to another without any direct electrical connection by the electromagnetic induction of an alternating electrical current between two or more magnetically coupled coils or windings. Transformers are used to either increase (step-up) or decrease (step-down) the voltage of an alternating electrical current within the circuitry of electrical equipment or systems. The magnetic circuit where the voltage is transformed form the core of the transformer, and is often made from grain-oriented electrical steel. Transformers are classified according to their power handling capacity and type of insulation in HTSUS categories 8504.21, 8504.22, 8504.23, 8504.31, 8504.32, 8504.33 and 8504.34. <b>For purposes of this investigation, dry transformers with a power handling capacity of less than or equal to 1KVA are excluded from the subject product scope.</b>
Voltage Regulator	A device designed to automatically regulate distribution line voltages within a desired range. These products are classified within HTSUS 9032.89.4000. (Note: This HTSUS classification includes products other than voltage regulators not subject to this investigation)
United States	The "United States" or "U.S." includes the 50 states, Puerto Rico, the District of Columbia, Guam, the Trust Territories, and the U.S. Virgin Islands.

**BUSINESS CONFIDENTIAL - Per Section 705(d) of the Defense Production Act**

**1. Organization Information**

Provide the following information for your organization	
A.	Organization Name
	Street Address
	City
	State
	ZIP Code
	Country of Global Headquarters
	U.S. Point of Contact Name
	U.S. Point of Contact Email
	U.S. Point of Contact Phone

Is this organization owned, in whole or in part, by any private or government entity? Indicate Yes/No, then identify the entities below, if applicable. List entities with at least 5% ownership.

Entity Name	Global Headquarters Street Address	Global Headquarters City	Global Headquarters State/Province	Global Headquarters Country	Ownership %
B.					

At the global headquarters level, identify the total number of facilities that your organization currently operates, including standby/idle facilities, inside and outside the U.S., that manufacture and/or distribute any of the subject products listed below.

Subject Products	Number of U.S. Facilities	Number of Non-U.S. Facilities
C.		
Non-Oriented Electrical Steel (NOES)		
Grain-Oriented Electrical Steel (GOES)		
Laminations (Stacked)		
Cores (Stacked)		
Cores (Wound)		
Liquid-Dielectric Transformer Under 650KVA		
Liquid-Dielectric Transformer 650-10000KVA		
Liquid-Dielectric Transformer Over 10000KVA		
Dry-Type/Other Transformer 1-16KVA		
Dry-Type/Other Transformer 16-500KVA		
Dry-Type/Other Transformer Over 500KVA		
Voltage Regulators		
Other	(Specify)	

Comments:	
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2. Facility Information

Identify the total number of facilities that your organization operates in the United States, including facilities on standby or idled, involved in the NOES, GOES, laminations (stacked), cores (stacked or wound), transformers, or voltage regulators production activities. Facilities performing multiple functions should be counted just once for the total number, but each function should be listed separately below.

[Empty box for total number of facilities]

List your organization's facilities involved in NOES, GOES, laminations (stacked), cores (stacked or wound), transformers, or voltage regulators production activities that are located in the United States, identifying each facility's name, city, state, scope of activity, operating status, and any expected change in operations (e.g. expansion, worker layoffs, shutdown, etc.) from 2020-2023. If a single facility provides multiple functions under "Scope of Activity," list the facility on separate lines, and indicate each scope of activity and other relevant information separately. Also list any facilities that have been shut down since 2015.

Facility Name	City	State	Scope of Activity	Product Capability	Operating Status			Future Operating Status	
					Operating Status	Start Date of Standby/Idle or Shutdown	Reason for Standby/Idle or Shutdown	Expected Change 2020-2023	Explain
1			NOES	Manufacture	Operating			Expansion	
2			GOES	Distribute	Idle/Standby			Upgrade	
3			Laminations (Stacked)	Both	Shutdown			Starting Operations	
4			Cores (Wound)					Restarting Operations	
5			Cores (Stacked)					Standby/Idle	
6			Liquid-Dielectric Transformer Under 650KVA					Significant Modernization	
7			Liquid -DielectricTransformer 650-10000KVA					Closure	
8			Liquid-DielectricTransformer Over 10000KVA					None	
9			Dry-Type/Other Transformer 1-16KVA						
10			Dry-Type/Other Transformer 16-500KVA						
11			Dry-Type/Other Transformer Over 500KVA						
12			Voltage Regulators						
13									
14									
15									
16									
17									
18									
19									
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45									

A.

B.

1 If any of your U.S. facilities are scheduled to have a change in operating status in the 2020-2023 period, explain the circumstances of this action.

2 If any of your U.S. facilities are scheduled to open or may open in the 2020-2023 period, explain the circumstances of this action.

Comments:





Facility Name								
Facility Name								





Comments:

BUSINESS CONFIDENTIAL - Per Section 705(d) of the Defense Production Act

**3b. U.S. Production (Continued)**

For U.S. operations, provide the U.S. sales and export sales data for the 2015 to 2019 period for your organization's subject products. Record \$ in Thousands USD, e.g. \$12,000.00 = survey input of \$12

NOES						
Select 'Not Applicable' if the category of products is not relevant to your organization						
Units:						
U.S. and Export Sales		2015	2016	2017	2018	2019
1	U.S. Sales (Specified Unit)					
	U.S. Sales (\$)					
	Average U.S. Sales Price per Unit (\$)					
	Export Sales (Specified Unit)					
	Export Sales (\$)					
	Average Export Sales Price per Unit (\$)					
	Percentage of Total 2019 Sales Attributable to Product					

GOES						
Select 'Not Applicable' if the category of products is not relevant to your organization						
Units:						
U.S. and Export Sales		2015	2016	2017	2018	2019
2	U.S. Sales (Specified Unit)					
	U.S. Sales (\$)					
	Average U.S. Sales Price per Unit (\$)					
	Export Sales (Specified Unit)					
	Export Sales (\$)					
	Average Export Sales Price per Unit (\$)					
	Percentage of Total 2019 Sales Attributable to Product					

Laminations (Stacked)						
Select 'Not Applicable' if the category of products is not relevant to your organization						
Units:						
U.S. and Export Sales		2015	2016	2017	2018	2019
3	U.S. Sales (Specified Unit)					
	U.S. Sales (\$)					
	Average U.S. Sales Price per Unit (\$)					
	Export Sales (Specified Unit)					
	Export Sales (\$)					
	Average Export Sales Price per Unit (\$)					
	Percentage of Total 2019 Sales Attributable to Product					

Cores (Stacked)						
Select 'Not Applicable' if the category of products is not relevant to your organization						
Units:						
U.S. and Export Sales		2015	2016	2017	2018	2019
4	U.S. Sales (Specified Unit)					
	U.S. Sales (\$)					
	Average U.S. Sales Price per Unit (\$)					
	Export Sales (Specified Unit)					
	Export Sales (\$)					
	Average Export Sales Price per Unit (\$)					
	Percentage of Total 2019 Sales Attributable to Product					

**Cores (Wound)**

Select 'Not Applicable' if the category of products is not relevant to your organization						
Units:						
U.S. and Export Sales		2015	2016	2017	2018	2019
5	U.S. Sales (Specified Unit)					
	U.S. Sales (\$)					
	Average U.S. Sales Price per Unit (\$)					
	Export Sales (Specified Unit)					
	Export Sales (\$)					
	Average Export Sales Price per Unit (\$)					
	Percentage of Total 2019 Sales Attributable to Product					

**Liquid-Dielectric Transformer Under 650KVA**

Select 'Not Applicable' if the category of products is not relevant to your organization						
Units:						
U.S. and Export Sales		2015	2016	2017	2018	2019
6	U.S. Sales (Specified Unit)					
	U.S. Sales (\$)					
	Average U.S. Sales Price per Unit (\$)					
	Export Sales (Specified Unit)					
	Export Sales (\$)					
	Average Export Sales Price per Unit (\$)					
	Percentage of Total 2019 Sales Attributable to Product					

**Liquid-Dielectric Transformer 650-10000KVA**

Select 'Not Applicable' if the category of products is not relevant to your organization						
Units:						
U.S. and Export Sales		2015	2016	2017	2018	2019
7	U.S. Sales (Specified Unit)					
	U.S. Sales (\$)					
	Average U.S. Sales Price per Unit (\$)					
	Export Sales (Specified Unit)					
	Export Sales (\$)					
	Average Export Sales Price per Unit (\$)					
	Percentage of Total 2019 Sales Attributable to Product					

**Liquid-Dielectric Transformer Over 10000KVA**

Select 'Not Applicable' if the category of products is not relevant to your organization						
Units:						
U.S. and Export Sales		2015	2016	2017	2018	2019
8	U.S. Sales (Specified Unit)					
	U.S. Sales (\$)					
	Average U.S. Sales Price per Unit (\$)					
	Export Sales (Specified Unit)					
	Export Sales (\$)					
	Average Export Sales Price per Unit (\$)					
	Percentage of Total 2019 Sales Attributable to Product					

**Dry-Type/Other Transformer 1-16KVA**

Select 'Not Applicable' if the category of products is not relevant to your organization						
Units:						
U.S. and Export Sales		2015	2016	2017	2018	2019
9	U.S. Sales (Specified Unit)					
	U.S. Sales (\$)					
	Average U.S. Sales Price per Unit (\$)					
	Export Sales (Specified Unit)					
	Export Sales (\$)					
	Average Export Sales Price per Unit (\$)					
Percentage of Total 2019 Sales Attributable to Product						

**Dry-Type/Other Transformer 16-500KVA**

Select 'Not Applicable' if the category of products is not relevant to your organization						
Units:						
U.S. and Export Sales		2015	2016	2017	2018	2019
10	U.S. Sales (Specified Unit)					
	U.S. Sales (\$)					
	Average U.S. Sales Price per Unit (\$)					
	Export Sales (Specified Unit)					
	Export Sales (\$)					
	Average Export Sales Price per Unit (\$)					
Percentage of Total 2019 Sales Attributable to Product						

**Dry-Type/Other Transformer Over 500KVA**

Select 'Not Applicable' if the category of products is not relevant to your organization						
Units:						
U.S. and Export Sales		2015	2016	2017	2018	2019
11	U.S. Sales (Specified Unit)					
	U.S. Sales (\$)					
	Average U.S. Sales Price per Unit (\$)					
	Export Sales (Specified Unit)					
	Export Sales (\$)					
	Average Export Sales Price per Unit (\$)					
Percentage of Total 2019 Sales Attributable to Product						

**Voltage Regulators**

Select 'Not Applicable' if the category of products is not relevant to your organization						
Units:						
U.S. and Export Sales		2015	2016	2017	2018	2019
12	U.S. Sales (Specified Unit)					
	U.S. Sales (\$)					
	Average U.S. Sales Price per Unit (\$)					
	Export Sales (Specified Unit)					
	Export Sales (\$)					
	Average Export Sales Price per Unit (\$)					
Percentage of Total 2019 Sales Attributable to Product						

Comments:



3c. Production Inputs and Costs

Answer the following questions related to your organization's manufacturing inputs.

1	How has your organization's usage of GOES relative to substitutes changed since 2015?	Use more GOES; Use more substitutes; No Change; NA	Explain	
2	For the following transformer categories, indicate whether, on average, GOES is required or preferred, or if substitutes are preferred, then explain.			
A.	Transformer Type	GOES Sourcing Decision	Explain	
A.	Liquid-Dielectric Transformer Under 650KVA	GOES Required		
B.	Liquid-Dielectric Transformer 650KVA-10000KVA	GOES Preferred		
C.	Liquid-Dielectric Transformer Over 10000	Substitute Preferred		
D.	Dry-Type/Other Transformer Under 1-16KVA			
E.	Dry-Type/Other Transformer Over 16-500KVA			
F.	Dry-Type/Other Transformer Over 500KVA			

For each subject product listed below, record the percentage of total manufacturing cost associated with the listed inputs.

Subject Product	Average Percentage Cost of Grain-Oriented Electrical Steel per Unit	Average Percentage Cost of GOES Substitute Per Unit	Average Percentage Cost of Laminations (Stacked)	Average Percentage Cost of Cores (Stacked)	Average Percentage Cost of Cores (Wound)
1 Laminations (Stacked)					
2 Cores (Stacked)					
3 Cores (Wound)					
4 Liquid-Dielectric Transformer Under 650KVA					
5 Liquid-Dielectric Transformer 650KVA-10000KVA					
6 Liquid-Dielectric Transformer Over 10000					
7 Dry-Type/Other Transformer 1-16KVA					
8 Dry-Type/Other Transformer 16-500KVA					
9 Dry-Type/Other Transformer Over 500KVA					
10 Voltage Regulators					

Answer the following questions related to your organization's operating costs.

Average Total 2019 Labor Costs as a Percentage of Total Facility Operating Cost:		Do labor costs make it difficult for your organization to remain competitive? Explain:	
Average Total 2019 Cybersecurity Costs as a Percentage of Total Facility Operating costs:		Do cybersecurity costs make it difficult for your organization to remain competitive? Explain:	
Have input costs for transformers (i.e. costs of GOES, laminations, cores, labor, etc.) increased since 2018?		Explain:	

For each of the subject products listed below, identify and explain whether your organization has experienced sourcing issues related to shortage of supply since 2015. For each subject product, indicate whether your organization bases input sourcing or supplier decisions on standard or technical quality differences between available suppliers. Also indicate whether it is necessary or a preference that your organization base input sourcing or supplier decisions on standard or technical quality differences, or if another factor is the main factor in sourcing decisions. Indicate the top country from which your organization chooses to source the listed products, and explain your answers.

Subject Product	Has your organization experienced any shortages in supply of critical materials related to the manufacture of the subject products?	Explain	Is it necessary or a preference that your organization base input sourcing or supplier decisions on standard or technical quality differences between suppliers?	Indicate the top country from which your organization sources this product	Explain
1 GOES	Ongoing		Necessary		
2 Laminations (Stacked)	Past		Preference		
3 Cores (Stacked)	Future Expected		Sometimes Necessary		
4 Cores (Wound)			Standard/Quality Not the Top Factor		
5 Liquid-Dielectric Transformer Under 650KVA					
6 Liquid-Dielectric Transformer 650KVA-10000KVA					
7 Liquid-Dielectric Transformer Over 10000					
8 Dry-Type/Other Transformer Under 1-16KVA					
9 Dry-Type/Other Transformer 16-500KVA					
10 Dry-Type/Other Transformer Over 500KVA					
11 Voltage Regulators					

Comments:





**Dry Transformer 1-16KVA**

Identify your organization's total number of suppliers for Dry Transformer Under 500KVA. Where necessary, input 0.

	Supplier	Supplier Headquarters	Is the Supplier a Related Party?	Country of Fabrication	End-Use	Top Factor Influencing Purchase from Supplier	2015		2016		2017		2018		2019	
							Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)
I 1																
2																
3																
4																
5																
6																
7																
8																
9																
10																

**Dry Transformer 16-500KVA**

Identify your organization's total number of suppliers for Dry Transformer Under 500KVA. Where necessary, input 0.

	Supplier	Supplier Headquarters	Is the Supplier a Related Party?	Country of Fabrication	End-Use	Top Factor Influencing Purchase from Supplier	2015		2016		2017		2018		2019	
							Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)
I 1																
2																
3																
4																
5																
6																
7																
8																
9																
10																

**Dry Transformer Over 500KVA**

Identify your organization's total number of suppliers for Dry Transformer Over 500KVA. Where necessary, input 0.

	Supplier	Supplier Headquarters	Is the Supplier a Related Party?	Country of Fabrication	End-Use	Top Factor Influencing Purchase from Supplier	2015		2016		2017		2018		2019	
							Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)
J 1																
2																
3																
4																
5																
6																
7																
8																
9																
10																

**Voltage Regulators**

Identify your organization's total number of suppliers for Voltage Regulators. Where necessary, input 0.

	Supplier	Supplier Headquarters	Is the Supplier a Related Party?	Country of Fabrication	End-Use	Top Factor Influencing Purchase from Supplier	2015		2016		2017		2018		2019	
							Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)
K 1																
2																
3																
4																
5																
6																
7																
8																
9																
10																

Comments:







**Dry Transformer 1-16KVA**

Identify your organization's total number of customers for Dry Transformer 1-16KVA. Where necessary, input 0.

	Customer Name	Country Destination	Is the customer a related party?	Primary End Use of Product	2015		2016		2017		2018		2019	
					Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)
H 1														
2														
3														
4														
5														
6														
7														
8														
9														
10														

**Dry Transformer 16-500KVA**

Identify your organization's total number of customers for Dry Transformer 16-500KVA. Where necessary, input 0.

	Customer Name	Country Destination	Is the customer a related party?	Primary End Use of Product	2015		2016		2017		2018		2019	
					Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)
I 1														
2														
3														
4														
5														
6														
7														
8														
9														
10														

**Dry Transformer Over 500KVA**

Identify your organization's total number of customers for Dry Transformer Over 500KVA. Where necessary, input 0.

	Customer Name	Country Destination	Is the customer a related party?	Primary End Use of Product	2015		2016		2017		2018		2019	
					Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)
J 1														
2														
3														
4														
5														
6														
7														
8														
9														
10														

**Voltage Regulators**

Identify your organization's total number of customers for Voltage Regulators. Where necessary, input 0.

	Customer Name	Country Destination	Is the customer a related party?	Primary End Use of Product	2015		2016		2017		2018		2019	
					Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)	Volume	Value (\$USD)
K 1														
2														
3														
4														
5														
6														
7														
8														
9														
10														

Comments:



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**6. Financials**

Provide the following financial line items for your location for the last five years below.

Source of Income Statement Items:						
Reporting Schedule:						
Income Statement (Select Line Items)		<b>Record \$ in Thousands, e.g. \$12,000.00 = survey input of \$12</b>				
		2015	2016	2017	2018	2019
A.	Net Sales (and other revenue)					
	1 <i>Defense-Related Sales Percentage</i>					
	2 <i>Non-U.S. Sales Percentage</i>					
B.	Cost of Sales / Cost of Goods Sold					
C.	Depreciation and Amortization					
D.	Total Operating Income (Loss)					
E.	Earnings Before Interest and Taxes					
F.	Net Income					
Source of Balance Statement Items:						
Reporting Schedule:						
Balance Sheet (Select Line Items)		<b>Record \$ in Thousands, e.g. \$12,000.00 = survey input of \$12</b>				
		2015	2016	2017	2018	2019
A.	Cash					
B.	Inventories					
C.	Current Assets					
D.	Total Assets					
E.	Current Liabilities					
F.	Total Liabilities					
G.	Retained Earnings					
H.	Total Owner's Equity					
Source of Other Items:						
Reporting Schedule:						
Other Select Items		<b>Record \$ in Thousands, e.g. \$12,000.00 = survey input of \$12</b>				
		2015	2016	2017	2018	2019
A.	Research & Development (R&D) Expenditure					
	1 <i>Defense-Related R&amp;D Percentage</i>					
B.	Capital Expenditure (CapEx)					
	1 <i>Defense-Related CapEx Percentage</i>					
Comment:						

**7. Employment**

Record the total number of full time equivalent (FTE) employees and contractors for the 2015 to 2019 period for U.S. facilities that produce subject products.

		2015	2016	2017	2018	2019
A	FTE Employees					
	FTE Contractors					
	Production/Engineering FTE Employees or Contractors					

Identify the key workforce issues your organization has experienced or anticipates in the next five years.

Issue		Primary Occupation Affected	Timeframe	Explain
B	Attracting Workers to Location	Production/Engineering	Ongoing, Expected to Continue	
	Employee Turnover	Both	Past Only (Resolved)	
	Finding Experienced Workers	Other	Expected In Future	
	Finding Qualified Workers	None	No or Not Applicable	
	Finding U.S. Citizens			
	Significant Portion of Workforce Retiring			
	Other (specify)			

C	Has your organization's employment been impacted as a result of the trade remedies imposed by the 2018 Section 232 Steel investigation?		Explain:	
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D	If you resumed operations at an idled or shutdown facility, do you reasonably anticipate being able to hire or rehire workers? What would the hiring timeline be?		Explain:	
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Comments:					
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**8 National Defense Support**

A	Did your organization directly or indirectly supply any subject products for U.S. defense systems or installations between 2015 and 2020 YTD? If no, proceed to next tab. If yes, complete sections B, C, and D below.					
B	From the list of U.S. Government agencies below, select those whose systems you supported between 2015 and 2020 YTD.					
	U.S. Air Force		U.S. Coast Guard		Department of Energy	
	U.S. Army		U.S. Intelligence Community (such as CIA, NGA, NRO, NSA)		Other	(Specify)
	U.S. Marine Corps		Missile Defense Agency (MDA)		Other	(Specify)
	U.S. Navy		Defense Logistics Agency		Other	(Specify)
C	Indicate which subject products your organization directly or indirectly provides for U.S. defense systems, installations, or known U.S. defense end uses, and the percentage of your organization's 2019 sales that are attributable to national defense support. Specify the primary Department of Defense Acquisition Category (ACAT) Major Defense Acquisition Program (MDAP) support your organization provides for each relevant subject product, if known.					
		Product	Defense Support?	Percentage of 2019 Sales Attributable to Defense Sales	Primary DOD ACAT/MDAP Support	Comments
	1	NOES	Direct			
	2	GOES	Indirect			
	3	Laminations (Stacked)	Both			
	4	Cores (Stacked)	None			
	5	Cores (Wound)	Unknown			
	6	Liquid-Dielectric Transformer Under 650KVA				
	7	Liquid-Dielectric Transformer 650-10000KVA				
	8	Liquid-Dielectric Transformer Over 10000KVA				
	9	Dry-Type/Other Transformer 1-16KVA				
	10	Dry-Type/Other Transformer 16-500KVA				
	11	Dry-Type/Other Transformer Over 500KVA				
12	Voltage Regulators					
D	Are any of your organization's subject-related contracts rated under the Defense Priorities & Allocations System (DPAS)? Further information about DPAS can be found here: <a href="https://www.dema.mil/DPAS/">https://www.dema.mil/DPAS/</a>			If yes, specify the nature and product of the DPAS rating:		
Comments:						

**9. Critical Infrastructure**

From the list of Critical Infrastructure Sectors below, indicate whether your organization provides subject products that support that sector, then select the primary product for which your organization supports each sector. Identify your organization's primary customer associated with the sector and product support for each sector supported. In-depth definitions of each sector may be found at: <https://www.dhs.gov/cisa/critical-infrastructure-sectors>

Critical Infrastructure Sector	Sector Support	Primary Product Support	Primary Customer Associated with Sector/Product Support	Explain
Chemical Sector	Yes	NOES		
Commercial Facilities Sector	No	GOES		
Communications Sector	No Support	Laminations (Stacked)		
Critical Manufacturing Sector		Cores (Wound)		
Dams Sector		Cores (Stacked)		
A Defense Industrial Base Sector		Liquid-Dielectric Transformer Under 650KVA		
Emergency Services Sector		Liquid-Dielectric Transformer 650-10000KVA		
Energy Sector		Liquid-Dielectric Transformer Over 10000KVA		
Financial Services Sector		Dry-Type/Other Transformer 1-16KVA		
Food and Agriculture Sector		Dry-Type/Other Transformer 16-500KVA		
Government and Facilities Sector		Dry-Type/Other Transformer Over 500KVA		
Healthcare and Public Health Sector		Voltage Regulators		
Information Technology Sector				
Nuclear Reactors, Materials, and Waste Sector				
Transportation Systems Sector				
Waste and Wastewater Systems Sector				

Comments:

**10. Competition and Trade**

From 2009 to 2019, indicate whether import competition has affected your U.S. subject-product related operations, sales, employment, planned expansions, etc. with respect to the production of any type of subject product. Indicate Yes/No and explain.

Item		Yes/No	Explain
A	1 Manufacturing Operations		
	2 Sales		
	3 Employment		
	4 Planned Expansions		
	5 Other:		

Does your organization anticipate any negative effects on its business due to future imports of subject products into the United States from the listed countries below? Indicate Yes/No and explain below.

Country		Yes/No	Explain
B	1 Mexico		
	2 Canada		
	3 Other:		
	4 Other:		
	5 Other:		
	6 Other:		
	7 Other:		
	8 Other:		
	9 Other:		
	10 Other:		

Describe the top five most significant challenges to the competitive position of your organization in the U.S. subject product market.

1	1	
	2	
	3	
	4	
	5	

Describe the top five most significant challenges to the competitive position of your organization in the non-U.S. subject product market.

2	1	
	2	
	3	
	4	
	5	

Comments:

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**11. COVID-19 Impacts**

Identify any impacts or actions resulting from the COVID-19 pandemic at your location, ranking the top three most significant impacts and top three most important actions (1 being the most important issue; 2 being the next most important issue, etc.):

A.	Impacts Experienced	-Yes/No-	Rank Top 3	Actions Taken	Short Term/Long Term	Rank Top 3
	Increased cost of materials			Reduce workforce		
	Inability to access work location			Increase online/remote work capabilities		
	Inability to fulfill contracts			Seek government assistance		
	Reduced sales			Delay or reject new contracts		
	Foreign supplier manufacturing delays			Begin to produce pandemic-related products		
	Domestic supplier manufacturing delays			Increase use of domestic suppliers		
	Increased demand			Reduce use of suppliers located in China		
	Transportation-based disruptions			Reduce use of suppliers located outside the U.S. and China		
	Financing difficulties			Increase inventories		
	Labor shortages			Increase supplier redundancy		
	Other <input type="text"/> (specify here)			Other <input type="text"/>		
	Identify any USG actions that would have best mitigated COVID-19 impacts to this location:					

Comments:

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## 12. Certification

The undersigned certifies that the information herein supplied in response to this questionnaire is complete and correct to the best of his/her knowledge. It is a criminal offense to willfully make a false statement or representation to any department or agency of the United States Government as to any matter within its jurisdiction (18 U.S.C. 1001 (1984 & SUPP. 1197)).

Once your organization has completed this survey, save a copy and submit it via email to [ESProducts232@bis.doc.gov](mailto:ESProducts232@bis.doc.gov). Be sure to retain your survey for your records and to facilitate any necessary edits or clarifications.

Organization Name	
Organization's Internet Address	
Name of Authorizing Official	
Title of Authorizing Official	
E-mail Address	
Phone Number and Extension	
Date Certified	

In the box below, provide any additional comments or any other information you wish to include regarding this survey assessment.

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How many hours did it take to complete this survey?

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