

Section 232 Investigation into Imports of Neodymium-Iron-Boron (NdFeB) Permanent Magnets



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. NdFeB Permanent Magnet industry. The survey results will be used to support an ongoing investigation on the effect of imports of Neodymium-Iron-Boron (NdFeB) Permanent Magnets 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 NdFeB Permanent Magnet imports 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: organization and facility information, production, feedstock and resale purchases, sales, employment, capital expenditures, research and development, intellectual property, national defense & critical infrastructure, and competition/challenges. The resulting data will provide the U.S. Department of Commerce detailed NdFeB Permanent Magnet 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 Information furnished herewith is deemed confidential and will not be published or disclosed except in accordance with Section 705 of the Defense Production Act of 1950, as amended (50 U.S.C. Sec. 4555).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 12 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. xxxx-xxxx), Washington, D.C. 20503.

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General Instructions

	<p>Your organization is required to complete this survey of the U.S. vanadium industry, which can be downloaded from the BIS website: XXX</p>
A.	<p>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.</p> <p>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.</p>
B.	<p>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.</p> <p>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.</p>
C.	<p>Do not disclose any USG classified information in this survey form.</p>
D.	<p>Upon completion of the survey, final review, and certification, transmit the survey document via e-mail to: NdFeB232@bis.doc.gov</p>
E.	<p>Questions related to the survey should be directed to BIS survey support staff at NdFeB232@bis.doc.gov</p> <p>E-mail is the preferred method of contact.</p> <p>You may speak with a member of the BIS survey support staff by calling (202) 482-0194.</p>
F.	<p>For questions related to the overall scope of this Section 232 Investigation, contact NdFeB232@bis.doc.gov or:</p> <p>Jason D. Bolton Program Manager, Industrial Studies BIS/Export Administration/Office of Technology Evaluation 1401 Constitution Avenue, NW, Room 1093 Washington, DC 20230</p> <p>DO NOT submit completed surveys to Mr. Bolton's postal or personal e-mail address. All surveys must be submitted electronically to: NdFeB232@bis.doc.gov</p>

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Definitions	
Term	Definition
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.
Bonded NdFeB Magnet	A magnet comprised of NdFeB powder bound by a matrix of polymer produced via compression, injection or calendaring.
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.
Critical Infrastructure	Sectors whose assets, systems, and networks, whether physical or virtual, are considered so vital to the United States that their incapacitation or destruction would have a debilitating effect on security, national economic security, national public health and safety, or any combination thereof.
Customer	Any organization (external or internal entity) for which your organization manufactures/processes any product comprised of NdFeB permanent magnets or related products for.
Defense-related Sales/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.
Distributor	An independent selling agent who has a contract to sell the products of a manufacturer.
Dysprosium Oxide (Dy2O3)	The commonly produced form of dysprosium oxide
Exports	Shipments to destinations outside the United States.
Facility	A building or the minimum complex of buildings or parts of buildings that conducts NdFeB permanent magnet or related products 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.
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.
Imports (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).
NdFeB Alloy	The NdFeB precursor materials from which sintered NdFeB magnets are produced.
NdFeB Magnet	The final sintered or bonded magnet form (often coated to protect from corrosion), ready for use in a particular end.
NdFeB Powder	The NdFeB precursor material form which bonded magnets are manufactured.
NdPr Oxide (aka Didymium Oxide)	Combined form of neodymium (75%) and praseodymium (25%) oxide commonly used by NdFeB manufacturers instead of neodymium and/or praseodymium oxide.
Neodymium Oxide (Nd2O3)	The commonly produced form of neodymium oxide.
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, manufacturing, or distributing NdFeB permanent magnets or related products.
Praseodymium Oxide (Pr6O11)	The commonly produced form of praseodymium oxide.
Production	The process of transforming inputs (raw materials, semi-finished goods, subassemblies, ideas, information, knowledge) into goods or services.
Rare Earth Elements (REE)	The lanthanide series of chemical elements, plus yttrium.
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 NdFeB permanent magnets or related products, including sales to end-users, producers, financial entities, intermediaries, traders, distributors, et al.
Single Source	An organization that is designated as the only accepted source for the supply of parts, components, materials, or services, even though other source with equivalent technical know-how and production capability may exist.
Sintered NdFeB Magnet	A fully dense magnet produced via the sintering process (i.e., pulverizing ingots in a magnetic field then hot treating in a sintering furnace).
Sole Source	An organization that is the only source for the supply of parts, components, or services. No alternative U.S. or non-U.S. based suppliers exist other than the current supplier.
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.
Terbium Oxide (Tb4O7)	The commonly produced form of terbium oxide.
Total Rare Earth Oxides (TREO)	The collective of all rare earth oxides combined.
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.

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1. Organization Information

Provide the following information for your organization. Please select "Other" for "State/Province" if located outside of the U.S.

A.	Organization Name	
	Street Address	
	City	
	State/Province	
	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 Non-U.S. entity? Indicate Yes/No, then identify the entities below, if applicable.
List entities with at least 5% ownership. **Include only direct relationships.**

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

Please provide your organization's CAGE, DUNS, and or NAICS code(s). Blank entries will be considered as "Not Applicable".

C.	Commercial and Government Entity (CAGE) Code(s)	Data Universal Numbering System (DUNS) Code(s)	NAICS (6-digit) Code(s)
	Find CAGE codes at: https://cage.dla.mil/	Find DUNS numbers at: https://www.dnb.com/duns-number/lookup.html	Find NAICS codes at: https://www.census.gov/naics/

Identify the steps in the NdFeB Permanent Magnet supply chain that your organization currently participates in. Please do not include standby/idle, closed, or future facilities in this section.

D.	Activity	Number of U.S. Facilities	Number of Non-U.S. Facilities
	Mining of Rare Earth (RE) Minerals		
	Processing and Separation of Rare Earth (RE) Carbonates and Oxides		
	NdFeB Alloy Production		
	Sintering of NdFeB Permanent Magnets		
	Bonding of NdFeB Permanent Magnets		
	Importer/Reseller/Distributor of NdFeB Permanent Magnets		
	Milling, Cutting, and Coating of NdFeB Permanent Magnets		
	Integration of NdFeB Permanent Magnets into Assemblies/Systems		
	Recycling/Reclamation of Rare Earth Elements (REE) from Waste		
	Recycling/Reclamation of NdFeB Permanent Magnets from Waste		
	End User of NdFeB Permanent Magnets		
	Other (Specify Here)		

Comments:	
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2a. Production Facilities

Identify all of your organization's production facilities with **NdFeB Permanent Magnet related operations** including facilities that are on standby/idle and closed. If your organization does not currently operate any NdFeB Permanent Magnet related production facilities, indicate "No" and proceed to part B. Provide the **LOCATION** (U.S. and Non-U.S.) of the facility, indicate all operations at each facility using the drop down menus, and specify any changes that may impact that facility over the next five years. If a given facility has more than one operation, list each operation at the facility and the given operation's capacity on separate lines. Note, only list facilities that **produce NdFeB Permanent Magnets or related products**. Do not list any **distribution or resale facilities**. Once completed, please proceed to Part B.

Facility Name	Location			Facility Operation		Average Annual Operating Cost (Cost of Goods Sold + Operating Expenses) (\$ Thousands USD)	Unit of Measurement	Facility Capacity			Outlook		
	City	State/Province (Select "Other" if outside the U.S.)	Country	Operation Type	Facility Operating Status			Total Facility Capacity (Specified Unit)	Average Capacity Utilization Rate (Last Full Year of Operation)	Time to Reach 100% Capacity Utilization (in days)	Cost to Reach 100% Capacity Utilization (\$ Thousands USD)	Do you anticipate any significant changes in this particular operation the next five years?	If yes or unknown, provide a brief explanation.
1				Mining of RE Minerals	Operating		Kg					Yes	
2				Separation and Processing of RE Carbonates and Oxides	Standby/Idle		Metric Ton (MT)					No	
3				NdFeB Alloy Production	Closed		Lbs					Unknown	
4				Sintered NdFeB Magnet Production			Short Ton (TN)						
5				Bonded NdFeB Magnet Production			Units						
6				Recycling/Reclamation of Rare Earth Elements (REE) from Waste									
7				Recycling/Reclamation of NdFeB Permanent Magnets from Waste									
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20													
Comments:													

If your organization plans to operate and/or fund new NdFeB Permanent Magnet or related product production facilities in 2022-2026, please answer the following: What is the operation type for the facility, the initial expected capacity, the final expected capacity, the expected start date, the primary challenge to start (if applicable), the estimated total cost to reach full production, and the previously allocated funds to reach full production. If your organization does not plan to operate or fund new production facilities between 2022-2026, indicate "No" and proceed to the next section. Note, **only list facilities that will produce NdFeB Permanent Magnets or related products**. Do not list any **distribution or resale facilities**. Once completed, please proceed to the next section.

Facility Name	Location			Facility Operation		Initial Expected Facility Capacity (Specified Unit)	Full Expected Facility Capacity (Specified Unit)	Expected Start Date	Start Factors			Explain
	City	State/Province (Select "Other" if outside the U.S.)	Country	Operation Type	Unit of Measurement				Primary Challenge to Start (If applicable)	Estimated Total Cost to Reach Full Production (\$ Thousands USD)	Previously Allocated Funds to Reach Full Production (\$ Thousands USD)	
1				Mining of RE Minerals	Kg				NdFeB Price			
2				Separation and Processing of RE Carbonates and Oxides	Metric Ton (MT)				Loss of Market Share to Imports			
3				NdFeB Alloy Production	Lbs				Loss of Market Share to Domestic Competition			
4				Sintered NdFeB Magnet Production	Short Ton (TN)				Declining Demand			
5				Bonded NdFeB Magnet Production	Units				High Operating Costs			
6				Recycling/Reclamation of Rare Earth Elements (REE) from Waste					COVID-19/Pandemic			
7				Recycling/Reclamation of NdFeB Permanent Magnets from Waste					Other			
8												
9												
10												
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Comments:												

Comments:

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2b. Distribution Facilities

Identify all of your organization's distribution facilities with **NdFeB Permanent Magnet related operations** including facilities that are on standby/idle and closed. If your organization does not currently operate any NdFeB Permanent Magnet related distribution facilities, indicate "No" and proceed to part B. Provide the **LOCATION** (U.S. and Non-U.S.) of the facility, indicate all operations at each facility using the drop down menus, and specify any changes that may impact that facility over the next five years. If a given facility has more than one operation, list each operation at the facility and the given operation's capacity on separate lines. Note, only list facilities that **distribute NdFeB Permanent Magnets or related products. Do not list any production facilities.** Once completed, please proceed to Part B.

A.	Facility Name	Location			Facility Operation			Facility Capacity					Outlook	
		City	State/Province (Select "Other" if outside the U.S.)	Country	Operation Type	Facility Operating Status	Average Annual Operating Cost (Cost of Goods Sold + Operating Expenses) (\$ Thousands USD)	Unit of Measurement	Average Annual Facility Throughput Capacity (Specified Unit)	Average Throughput Capacity Utilization Rate (Last Full Year of Operation)	Time to Reach 100% Throughput Capacity Utilization (in days)	Cost to Reach 100% Throughput Capacity Utilization (\$ Thousands USD)	Do you anticipate any significant changes in this particular operation the next five years?	If yes or unknown, provide a brief explanation.
1					Importer/Reseller/Distributor of NdFeB Permanent Magnets	Operating		Kg					Yes	
2					Milling, Cutting, and Coating of NdFeB Permanent Magnets	Standby/Idle		Metric Ton (MT)					No	
3					Integration of NdFeB Permanent Magnets into Assemblies/Systems	Closed		Lbs					Unknown	
4					End User of NdFeB Permanent Magnets			Short Ton (TN)						
5					Other			Units						
6														
7														
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20														
Comments:														

If your organization plans to operate and/or fund new NdFeB Permanent Magnet or related product distribution facilities in **2022-2026**, please answer the following: What is the operation type for the facility, the initial expected throughput capacity, the final expected throughput capacity, the expected start date, the primary challenge to start (if applicable), the estimated total cost to reach full throughput capacity, and the previously allocated funds to reach full throughput capacity. If your organization does not plan to operate or fund new distribution facilities between 2022-2026, indicate "No" and proceed to the next section. Note, **only list facilities that will distribute NdFeB Permanent Magnets or related products. Do not list any production facilities.** Once completed, please proceed to the next section.

B.	Facility Name	Location			Facility Operation			Start Factors					Explain	
		City	State/Province (Select "Other" if outside the U.S.)	Country	Operation Type	Unit of Measurement	Initial Expected Facility Throughput Capacity (Specified Unit)	Full Expected Facility Throughput Capacity (Specified Unit)	Expected Start Date	Primary Challenge to Start (if applicable)	Estimated Total Cost to Reach Full Throughput Capacity (\$ Thousands USD)	Previously Allocated Funds to Reach Full Throughput Capacity (\$ Thousands USD)		
1					Importer/Reseller/Distributor of NdFeB Permanent Magnets	Kg				NdFeB Price				
2					Milling, Cutting, and Coating of NdFeB Permanent Magnets	Metric Ton (MT)				Loss of Market Share to Imports				
3					Integration of NdFeB Permanent Magnets into Assemblies/Systems	Lbs				Loss of Market Share to Domestic Competition				
4					End User of NdFeB Permanent Magnets	Short Ton (TN)				Declining Demand				
5					Other	Units				High Operating Costs				
6										COVID-19/Pandemic				
7										Other				
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Comments:

3a. U.S. Production

Indicate if your organization produced (or plans to produce) NdFeB Permanent Magnets or related products between 2017-2021 (and 2022-2026 expected) in the United States. If your organization only distributed the following products, indicate "No" and proceed to the next section.

Has your organization produced, is currently producing, and/or plans to produce NdFeB Permanent Magnets or related products in the United States? If "No", please proceed to the next section. Do not include facilities that solely distribute, import, or export. Only include facilities that produce NdFeB Permanent Magnets and or related products.

Mining of Rare Earth (RE) Minerals												
Select "No" if category is not relevant to your operations												
Unit of Measurement (Specify Here if Other)												
	Actual Production from TREC					Economic Viability (2021 Only)		Estimated Production from TREC				
	2017	2018	2019	2020	2021	Average Cost per Unit to Produce (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
A. Total Rare Earth Oxides (TREC) Total Production (U.S. Facilities)												
(% of Rare Earth Elements (REE) contained in TREC)												
1	Dysprosium											
2	Neodymium											
3	Praseodymium											
4	Terbium											
5	Other Rare Earth Element (REE) (Specify Here)											
6	Other Rare Earth Element (REE) (Specify Here)											
		Total:	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Comments:												
Recycling/Reclamation of Rare Earth Elements (REE) from Waste Material												
Select "No" if category is not relevant to your operations												
Unit of Measurement (Specify Here if Other)												
	Actual Production from Waste Material					Economic Viability (2021 Only)		Estimated Production from Waste Material				
	2017	2018	2019	2020	2021	Average Cost per Unit to Recycle (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
B. Primary Waste Material Utilized Total REE Production (U.S. Facilities) (Specify Here)												
(% of Rare Earth Elements (REE) contained in Waste Material)												
1	Dysprosium											
2	Neodymium											
3	Praseodymium											
4	Terbium											
5	Other Rare Earth Element (REE) (Specify Here)											
6	Other Rare Earth Element (REE) (Specify Here)											
		Total:	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Comments:												
Separation and Processing of RE Carbonates and Oxides												
Select "No" if category is not relevant to your operations												
Unit of Measurement (Specify Here if Other)												
	Actual Production					Economic Viability (2021 Only)		Estimated Production				
	2017	2018	2019	2020	2021	Average Cost per Unit to Produce (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
C. Total Production (U.S. Facilities)												
1	Nd Oxide											
2	Dy Oxide											
3	NdPr Oxide											
4	Pr Oxide											
5	Other REE Oxides (Specify Here)											
Comments:												
NdFeB Alloy/Metal Production												
Select "No" if category is not relevant to your operations												
Unit of Measurement (Specify Here if Other)												
	Actual Production					Economic Viability (2021 Only)		Estimated Production				
	2017	2018	2019	2020	2021	Average Cost per Unit to Produce (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
D. Total Production (U.S. Facilities)												
1	Nd Metal											
2	Dy Metal											
3	NdPr Metal											
4	Pr Metal											
5	Other REE Metals (Specify Here)											
Comments:												
Sintered NdFeB Permanent Magnet Production												
Select "No" if category is not relevant to your operations												
Unit of Measurement (Specify Here if Other)												
	Actual Production					Economic Viability (2021 Only)		Estimated Production				
	2017	2018	2019	2020	2021	Average Cost per Unit to Produce/Recycle (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
E. Total Production (U.S. Facilities)												
1	N25-N30											
2	N31-N35											
3	N36-N40											
4	N41-N45											
5	N46-N50											
6	N51-N55											
7	N25M-N30M											
8	N31M-N35M											
9	N36M-N40M											
10	N41M-N45M											
11	N46M-N50M											
12	N51M-N55M											
13	N25H-N30H											
14	N31H-N35H											
15	N36H-N40H											
16	N41H-N45H											
17	N46H-N50H											
18	N51H-N55H											
19	N25SH-N30SH											
20	N31SH-N35SH											
21	N36SH-N40SH											
22	N41SH-N45SH											
23	N46SH-N50SH											
24	N51SH-N55SH											
25	N25UH-N30UH											
26	N31UH-N35UH											
27	N36UH-N40UH											
28	N41UH-N45UH											
29	N46UH-N50UH											
30	N51UH-N55UH											
31	N25EH-N30EH											
32	N31EH-N35EH											
33	N36EH-N40EH											
34	N41EH-N45EH											
35	N46EH-N50EH											
36	N51EH-N55EH											
37	N25AH-N30AH											
38	N31AH-N35AH											
39	N36AH-N40AH											
40	N41AH-N45AH											
41	N46AH-N50AH											
42	N51AH-N55AH											
43	Other (Specify Here)											
Comments:												
Bonded NdFeB Permanent Magnet Production												
Select "No" if category is not relevant to your operations												
Unit of Measurement (Specify Here if Other)												
	Actual Production					Economic Viability (2021 Only)		Estimated Production				
	2017	2018	2019	2020	2021	Average Cost per Unit to Produce/Recycle (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
F. Total Production (U.S. Facilities) Mega Gauss Oersted (MGOe)												
1	1 MGOe											
2	2 MGOe											
3	3 MGOe											
4	4 MGOe											
5	5 MGOe											
6	6 MGOe											
7	7 MGOe											
8	8 MGOe											
9	9 MGOe											
10	10 MGOe											
11	11 MGOe											
12	12 MGOe											
13	1H MGOe											
14	2H MGOe											
15	3H MGOe											
16	4H MGOe											
17	5H MGOe											
18	6H MGOe											
19	7H MGOe											
20	8H MGOe											
21	9H MGOe											
22	10H MGOe											
23	11H MGOe											
24	12H MGOe											
25	Other (Specify Here)											
Comments:												
Comments:												

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3b. Non-U.S. Production

Indicate if your organization produced (or plans to produce) NdFeB Permanent Magnets or related products between 2017-2021 (and 2022-2026 expected) outside the United States. If your organization only distributed the following products, indicate "No" and proceed to the next section.

Has your organization produced, is currently producing, and/or plans to produce NdFeB Permanent Magnets or related products outside the United States? If "No", please proceed to the next section. No Yes

Mining of Rare Earth (RE) Minerals

Select "No" if category is not relevant to your operations No Yes

Unit of Measurement: _____ (Specify Here if Other)

	Actual Production from TREO					Economic Viability (2021 Only)		Estimated Production from TREO				
	2017	2018	2019	2020	2021	Average Cost per Unit to Produce (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
Total Rare Earth Oxides (TREO) Total Production (Non-U.S. Facilities)												
(% of Rare Earth Elements (REE) contained in TREO)												
1 Dysprosium												
2 Neodymium												
3 Praseodymium												
4 Terbium												
5 Other Rare Earth Element (REE) (Specify Here)												
6 Other Rare Earth Element (REE) (Specify Here)												
Total:	0%	0%	0%	0%	0%			0%	0%	0%	0%	0%
Comments:	(Specify Here)											

Recycling/Reclamation of Rare Earth Elements (REE) from Waste Material

Select "No" if category is not relevant to your operations No Yes

Unit of Measurement: _____ (Specify Here if Other)

	Actual Production from Waste Material					Economic Viability (2021 Only)		Estimated Production from Waste Material				
	2017	2018	2019	2020	2021	Average Cost per Unit to Recycle (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
Primary Waste Material Utilized Total REE Production (Non-U.S. Facilities)												
(% of Rare Earth Elements (REE) contained in Waste Material)												
1 Dysprosium												
2 Neodymium												
3 Praseodymium												
4 Terbium												
5 Other Rare Earth Element (REE) (Specify Here)												
6 Other Rare Earth Element (REE) (Specify Here)												
Total:	0%	0%	0%	0%	0%			0%	0%	0%	0%	0%
Comments:	(Specify Here)											

Separation and Processing of RE Carbonates and Oxides

Select "No" if category is not relevant to your operations No Yes

Unit of Measurement: _____ (Specify Here if Other)

	Actual Production					Economic Viability (2021 Only)		Estimated Production				
	2017	2018	2019	2020	2021	Average Cost per Unit to Produce (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
Total Production (Non-U.S. Facilities)												
1 Nd Oxide												
2 Dy Oxide												
3 NdPr Oxide												
4 Pr Oxide												
5 Other REE Oxides (Specify Here)												
Comments:	(Specify Here)											

NdFeB Alloy/Metal Production

Select "No" if category is not relevant to your operations No Yes

Unit of Measurement: _____ (Specify Here if Other)

	Actual Production					Economic Viability (2021 Only)		Estimated Production				
	2017	2018	2019	2020	2021	Average Cost per Unit to Produce (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
Total Production (Non-U.S. Facilities)												
1 Nd Metal												
2 Dy Metal												
3 NdPr Metal												
4 Pr Metal												
5 Other REE Metals (Specify Here)												
Comments:	(Specify Here)											

Sintered NdFeB Permanent Magnet Production

Select "No" if category is not relevant to your operations No Yes

Unit of Measurement: _____ (Specify Here if Other)

	Actual Production					Economic Viability (2021 Only)		Estimated Production				
	2017	2018	2019	2020	2021	Average Cost per Unit to Produce (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
Total Production (Non-U.S. Facilities)												
1 N25-N30												
2 N31-N35												
3 N36-N40												
4 N41-N45												
5 N46-N50												
6 N51-N55												
7 N25M-N30M												
8 N31M-N35M												
9 N36M-N40M												
10 N41M-N45M												
11 N46M-N50M												
12 N51M-N55M												
13 N25H-N30H												
14 N31H-N35H												
15 N36H-N40H												
16 N41H-N45H												
17 N46H-N50H												
18 N51H-N55H												
19 N25SH-N30SH												
20 N31SH-N35SH												
21 N36SH-N40SH												
22 N41SH-N45SH												
23 N46SH-N50SH												
24 N51SH-N55SH												
25 N25UH-N30UH												
26 N31UH-N35UH												
27 N36UH-N40UH												
28 N41UH-N45UH												
29 N46UH-N50UH												
30 N51UH-N55UH												
31 N25EH-N30EH												
32 N31EH-N35EH												
33 N36EH-N40EH												
34 N41EH-N45EH												
35 N46EH-N50EH												
36 N51EH-N55EH												
37 N25AH-N30AH												
38 N31AH-N35AH												
39 N36AH-N40AH												
40 N41AH-N45AH												
41 N46AH-N50AH												
42 N51AH-N55AH												
43 Other (Specify Here)												
Comments:	(Specify Here)											

Bonded NdFeB Permanent Magnet Production

Select "No" if category is not relevant to your operations No Yes

Unit of Measurement: _____ (Specify Here if Other)

	Actual Production					Economic Viability (2021 Only)		Estimated Production				
	2017	2018	2019	2020	2021	Average Cost per Unit to Produce (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
Total Production (Non-U.S. Facilities) Mega Gauss Oersted (MGOe)												
1 1 MGOe												
2 2 MGOe												
3 3 MGOe												
4 4 MGOe												
5 5 MGOe												
6 6 MGOe												
7 7 MGOe												
8 8 MGOe												
9 9 MGOe												
10 10 MGOe												
11 11 MGOe												
12 12 MGOe												
13 1H MGOe												
14 2H MGOe												
15 3H MGOe												
16 4H MGOe												
17 5H MGOe												
18 6H MGOe												
19 7H MGOe												
20 8H MGOe												
21 9H MGOe												
22 10H MGOe												
23 11H MGOe												
24 12H MGOe												
25 Other (Specify Here)												
Comments:	(Specify Here)											

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Previous Page		4a. Sourcing/Feedstock Purchases																												Next Page		
Did your organization purchase feedstocks which were used to produce NdFeB Permanent Magnets or related products between 2017-2021 (and 2022-2026 expected)? If yes, answer the following questions below for each of your organization's suppliers. If no, please proceed to the next section. If your organization has more than ten suppliers, rank them by volume of purchases over the 2017-2026 period (greatest to least). For 2022-2026, limit your responses to signed contracts and memorandums of understanding (MOUs). Do not include speculative/desired feedstock purchases. Note, do not include any purchases which were intended for resale (i.e. purchases which do not include value-add activities).																																
Separation and Processing of RE Carbonates and Oxides (Purchases of Total Rare Earth Oxides and Waste Material)																																
Select "No" if category is not relevant to your operations																																
Unit of Measurement																																
Supplier Name	Country of Purchase (Location of Feedstock)	Single/Sole Source?	10-Digit HTSUS Code (If Known)	Feedstock Type	Specify Waste Material (If Applicable)	Top Factor Influencing Purchase	TREO Content (% of REE contained in TREO) or (% of Rare Earth Elements (REE) contained in Waste Material)				Total:		2017		2018		2019		2020		2021		2022		2023		2024		2025		2026	
							Dysprosium	Neodymium	Praseodymium	Terbium	Specify Here	Specify Here	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)
A.1		Single Source		Total Rare Earth Oxides (TREO)		Financial Consideration																										
2		Sole Source		Waste Material		Technical Specification																										
3		Neither				Relationship																										
4						Delivery																										
5						Other																										
6																																
7																																
8																																
9																																
10																																
Comments:																																
NdFeB Alloy/Metal Production																																
Select "No" if category is not relevant to your operations																																
Unit of Measurement																																
Supplier Name	Country of Purchase (Location of Feedstock)	Type of REE Oxide Feedstock	Specify Other REE Oxides (If Applicable)	Single/Sole Source?	10-Digit HTSUS Code (If Known)	Top Factor Influencing Purchase	Total:		2017		2018		2019		2020		2021		2022		2023		2024		2025		2026					
							Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)		
B.1		Nd Oxide		Single Source		Financial Consideration																										
2		Dy Oxide		Sole Source		Technical Specification																										
3		NdFe Metal		Neither		Relationship																										
4		Pr Oxide				Delivery																										
5		Other REE Oxides				Other																										
6																																
7																																
8																																
9																																
10																																
Comments:																																
Sintered NdFeB Magnet Production																																
Select "No" if category is not relevant to your operations																																
Unit of Measurement																																
Supplier Name	Country of Purchase (Location of Feedstock)	Type of REE Metal Feedstock	Specify Other REE Metals/Waste Material (If Applicable)	Single/Sole Source?	10-Digit HTSUS Code (If Known)	Percent of Recycled Material	Top Factor Influencing Purchase	Total:		2017		2018		2019		2020		2021		2022		2023		2024		2025		2026				
								Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	
C.1		Nd Metal		Single Source		Financial Consideration																										
2		Dy Metal		Sole Source		Technical Specification																										
3		NdFe Metal		Neither		Relationship																										
4		Pr Metal				Delivery																										
5		Ferrosilicon				Other																										
6		100% Steel																														
7		Other REE Metals																														
8		Waste Material																														
9																																
10																																
Comments:																																
Bonded NdFeB Magnet Production																																
Select "No" if category is not relevant to your operations																																
Unit of Measurement																																
Supplier Name	Country of Purchase (Location of Feedstock)	Type of REE Metal Feedstock	Specify Other REE Metals/Waste Material (If Applicable)	Single/Sole Source?	10-Digit HTSUS Code (If Known)	Percent of Recycled Material	Top Factor Influencing Purchase	Total:		2017		2018		2019		2020		2021		2022		2023		2024		2025		2026				
								Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	
D.1		NdFeB Powder		Single Source		Financial Consideration																										
2		Ferrosilicon		Sole Source		Technical Specification																										
3		100% Steel		Neither		Relationship																										
4		Waste Material				Delivery																										
5						Other																										
6																																
7																																
8																																
9																																
10																																
Comments:																																
Comments:																																

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4b. NdFeB Permanent Magnet Purchases

Did your organization purchase NdFeB Permanent Magnets or NdFeB Permanent Magnet Blocks between 2017-2021 (and 2022-2026 expected)? If yes, answer the following questions below for each of your organization's suppliers. If no, please proceed to the next section. If your organization has more than twenty-five suppliers, rank them by volume of purchases over the 2017-2026 period (greatest to least). For 2022-2026, limit your responses to signed contracts and memorandums of understanding (MOU). Do not include speculative/desired purchases. Note, do not include any feedstock purchases in this section (i.e. purchases which are self consumed intended for resale as a different product).

Sintered NdFeB Magnet Production																										
Select "No" if category is not relevant to your operations							(Specify Here if Other)																			
Unit of Measurement							2017		2018		2019		2020		2021		2022		2023		2024		2025		2026	
Supplier Name	Country of Purchase (Location of Product)	Type of Magnet Purchased	Single/Sole Source?	10-Digit HTSUS Code (if known)	Operation Type	Top Factor Influencing Purchase	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)
1		N35-N30	Single Source		Importer/Reseller/Dist	Financial Consideration																				
2		N51-N55	Sole Source		Milling, Cutting, and	Technical Specification																				
3		N25M-N30M	Neither		Integration of NdFeB	Relationship																				
4		N51M-N55M			End User of NdFeB	Delivery																				
5		N25H-N30H			Other	Other																				
6		N51H-N55H																								
7		N25JH-N30JH																								
8		N51JH-N55JH																								
9		N25JH-N30JH																								
10		N51JH-N55JH																								
11		N25EH-N30EH																								
12		N51EH-N55EH																								
13		N25AH-N30AH																								
14		N51AH-N55AH																								
15																										
16																										
17																										
18																										
19																										
20																										
Comments:																										

Bonded NdFeB Magnet Production																										
Select "No" if category is not relevant to your operations							(Specify Here if Other)																			
Unit of Measurement							2017		2018		2019		2020		2021		2022		2023		2024		2025		2026	
Supplier Name	Country of Purchase (Location of Product)	Type of Magnet Purchased	Single/Sole Source?	10-Digit HTSUS Code (if known)	Operation Type	Top Factor Influencing Purchase	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)
1		1 MG0e	Single Source		Importer/Reseller/Dist	Financial Consideration																				
2		12 MG0e	Sole Source		Milling, Cutting, and	Technical Specification																				
3		1H MG0e	Neither		Integration of NdFeB	Relationship																				
4		12H MG0e			End User of NdFeB	Delivery																				
5					Other	Other																				
6																										
7																										
8																										
9																										
10																										
11																										
12																										
13																										
14																										
15																										
16																										
17																										
18																										
19																										
20																										
Comments:																										

Did your organization sell NdFeB Permanent Magnets or related products between 2017-2021 (and 2022-2026 expected)? If yes, answer the following questions below for each of your organization's customers. If no, please proceed to the next section. If your organization has more than ten customers, rank them by volume of sales over the 2017-2026 period (greatest to least). For 2022-2026, limit your responses to signed contracts and memorandums of understanding (MOUs). Do not include speculative/desired sales. Note: do not include intra-company transfers or list any material that was internally consumed (i.e. Only include sales to other entities outside of your organization).

DFARS 225.7018, 10 U.S.C. 2533c, The John S. McCain National Defense Authorization Act - NDAA 2019: <https://www.federalregister.gov/documents/2019/04/30/2019-08485/defense-federal-acquisition-regulation-supplement-restriction-on-the-acquisition-of-certain-magnets>

Total Rare Earth Oxides (TREO)

Select "No" if category is not relevant to your operations
Unit of Measurement

Customer Name	Country of Sale	End Use (If Known)	10-Digit HTSUS Code (If Known)	Top Factor Influencing Sale	TREO Content (% of REE contained in TREO)				Total:		2017		(Specify Here if Other)		2019		2020		2021		2022		2023		2024		2025		2026						
					Dysprosium	Neodymium	Praseodymium	Terbium	(Specify Here)	(Specify Here)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)					
																															Other	Other			
1		Sintered NdFeB Permanent Magnets		Financial Consideration																															
2		Bonded NdFeB Permanent Magnets		Technical Specification																															
3		Offshore wind turbines		Relationship																															
4		Electric vehicles		Delivery																															
5		Consumer electronics		Other																															
6		Industrial motors																																	
7		Non-drive/turn motors in vehicles																																	
8		Unknown																																	
9																																			
10																																			
Comments:																																			

Select "No" if category is not relevant to your operations
Unit of Measurement

Customer Name	Country of Sale	Type of REE Oxide	Specify Other REE Oxides (If Applicable)	End Use (If Known)	10-Digit HTSUS Code (If Known)	Total:		2017		(Specify Here if Other)		2019		2020		2021		2022		2023		2024		2025		2026									
						Top Factor Influencing Sale	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)															
																					Other	Other													
1		Nd Oxide		Sintered NdFeB Permanent Magnets																															
2		Dy Oxide		Bonded NdFeB Permanent Magnets																															
3		NdPr Oxide		Offshore wind turbines																															
4		Pr Oxide		Electric vehicles																															
5		Other REE Oxides		Consumer electronics																															
6				Industrial motors																															
7				Non-drive/turn motors in vehicles																															
8				Unknown																															
9																																			
10																																			
Comments:																																			

Select "No" if category is not relevant to your operations
Unit of Measurement

Customer Name	Country of Sale	Type of REE Alloy/Metal	Specify Other REE Alloy/Metals (If Applicable)	End Use (If Known)	10-Digit HTSUS Code (If Known)	Total:		2017		(Specify Here if Other)		2019		2020		2021		2022		2023		2024		2025		2026									
						Top Factor Influencing Sale	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)																	
																			Other	Other															
1		Nd Metal		Sintered NdFeB Permanent Magnets																															
2		Dy Metal		Bonded NdFeB Permanent Magnets																															
3		NdPr Metal		Offshore wind turbines																															
4		Pr Metal		Electric vehicles																															
5		Other REE Metals		Consumer electronics																															
6				Industrial motors																															
7				Non-drive/turn motors in vehicles																															
8				Unknown																															
9																																			
10																																			
Comments:																																			

Select "No" if category is not relevant to your operations
Unit of Measurement

Customer Name	Country of Sale	Type of Magnet	End Use (If Known)	DFARS 225.7018, 10 U.S.C. 2533c Compliant?	10-Digit HTSUS Code (If Known)	Total:		2017		(Specify Here if Other)		2019		2020		2021		2022		2023		2024		2025		2026									
						Top Factor Influencing Sale	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)																	
																			Other	Other															
1		N25-N30	Sintered NdFeB Permanent Magnets	Yes																															
2		N25M-N30M	Bonded NdFeB Permanent Magnets	No																															
3		N25H-N30H	Offshore wind turbines	Unknown																															
4		N25SH-N30SH	Electric vehicles																																
5		N25I-N30I	Consumer electronics																																
6		N25EH-N30EH	Industrial motors																																
7		N25AH-N30AH	Non-drive/turn motors in vehicles																																
8																																			
9																																			
10																																			
Comments:																																			

Select "No" if category is not relevant to your operations
Unit of Measurement

Customer Name	Country of Sale	Type of Magnet	End Use (If Known)	DFARS 225.7018, 10 U.S.C. 2533c Compliant?	10-Digit HTSUS Code (If Known)	Total:		2017		(Specify Here if Other)		2019		2020		2021		2022		2023		2024		2025		2026									
						Top Factor Influencing Sale	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)																	
																			Other	Other															
1		1 MGDe	Sintered NdFeB	Yes																															
2		12 MGDe	Bonded NdFeB	No																															
3		1H MGDe	Offshore wind turbines	Unknown																															
4		12H MGDe	Electric vehicles																																
5			Consumer electronics																																
6			Industrial motors																																
7			Non-drive/turn motors																																
8																																			
9																																			
10																																			
Comments:																																			

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6. Employment

Record the total number of full time equivalent (FTE) employees and contractors for the **2017 to 2021 (and expected for 2022-2026)** period for your organization employed at the locations listed in sections 2a and 2b. Estimates are acceptable.

A.		Past					Current	Expected			
		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
	FTE Employees & Contractors										

Record the number of workers by occupation employed at the locations listed in sections 2a and 2b for **2022 only**. Estimates are acceptable.

B.	Occupation	Number of Employees	
	Engineers, Scientists, R&D		
	Production Line Operations		
	Testing and Quality Control		
	Information Technology/Computing		
	Sales, Administrative, and Management		
	Other (Specify Here)		
	Total:	0	

C.	Issue	Timeframe	Primary Occupation Affected	Explain
	Attracting Workers to Location	Ongoing, Expected to Continue	Engineers, Scientists, R&D	
	Employee Turnover	Past Only (Resolved)	Production Line Operations	
	Finding Experienced Workers	Expected In Future	Testing and Quality Control	
	Finding Qualified Workers	No or Not Applicable	Information Technology/Computing	
	Finding U.S. Citizens		Sales, Administrative, and Management	
	Significant Portion of Workforce Retiring		Other	
	Other (Specify Here)		None	
	Other (Specify Here)			

D. Describe any significant changes in the recruitment, hiring and/or retention of human capital

E. If you plan to shutdown a facility, do you reasonably anticipate being able to hire or rehire workers? Explain:

Comments:

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7. Capital Expenditures

A. Has your organization conducted NdFeB Permanent Magnet product related capital expenditures (CapEx) from 2017-2021 (and or expects to for 2022-2026)? If no, proceed to the next section.

Record your organization's CapEx dollar expenditures and type of CapEx for the 2017-2021 (2022-2026 estimates) period.

Record \$ in Thousands, e.g. \$12,000.00 = survey input of \$12

	2017		2018		Past			Current	Future			
	\$	\$	\$	\$	2019	2020	2021	2022	2023	2024	2025	2026
1 Total CapEx												
2 Machinery, Equipment, and Vehicles												
3 IT, Computers, Software												
4 Land, Buildings, and Leasehold Improvements												
5 Other (Specify Here)												
6 Other (Specify Here)												

Provide your organization's CapEx funding sources for **2021 only**. Estimates are acceptable. U.S. and Non-U.S. Industry refers to joint ventures or other partnerships with your organization (does not include bonds, IPOs, or other funding sources). In addition, please provide any relevant CapEx projects that your organization is currently conducting (or plans to conduct by 2026).

Source of Funding		CapEx Project(s) Explain:
Internal/Self-Funded		
DOE-Related (Including CMI & AMES)		
DOD-Related		
Other USG-Related		
State/Local Government		
U.S. Industry		
Non-U.S. Industry		
Non-U.S. Government		
Other (Specify Here)		
Total:	0%	

From 2017-2021, did your organization experience any major change(s) in CapEx related to NdFeB Permanent Magnet related products?

If Yes, identify the reasons for these change(s):

D. For 2022-2026, does your organization anticipate any major change(s) to CapEx related to NdFeB Permanent Magnet related products?

If Yes, identify the reasons for these change(s):

In order to produce NdFeB Permanent Magnets and or related products, are there significant CapEx costs associated with production? If yes, please answer the following below. If no, please proceed to the next section. (Note, only provide CapEx for the step(s) of the process chain that your organization participates in).

Mining of RE Minerals									
Equipment	Equipment Producer Name	Equipment Producer Country	Single/Sole Source	Average lead time to acquire (in days)	Reason For Disruption (If Applicable)	Primary Resolution (If Applicable)	Criticality	Average cost to acquire (\$ Thousands USD)	Comments
			Single Source		Cyber Security Incident	Designed Input	4 - Little to no impact on production		
			Sole Source		Disease/Quarantine	Developed Captive Capability	3 - Partial impact on production		
			Neither		Equipment Outage	Identified Another Supplier	2 - Significant impact on production		
					Financial Constraint	Stockpiling	1 - Critical to production (cannot produce without)		
					Labor Disruption	Substituted Input			
					Regulatory/Environmental Restrictions	Waited Until Disruption Passed			
					Other	Other			
					None	None			

Recycling/Reclamation of Rare Earth Elements (REE) from Waste Material									
Equipment	Equipment Producer Name	Equipment Producer Country	Single/Sole Source	Average lead time to acquire (in days)	Reason For Disruption (If Applicable)	Primary Resolution (If Applicable)	Criticality	Average cost to acquire (\$ Thousands USD)	Comments

Separation and Processing of RE Carbonates and Oxides									
Equipment	Equipment Producer Name	Equipment Producer Country	Single/Sole Source	Average lead time to acquire (in days)	Reason For Disruption (If Applicable)	Primary Resolution (If Applicable)	Criticality	Average cost to acquire (\$ Thousands USD)	Comments

NdFeB Alloy Production									
Equipment	Equipment Producer Name	Equipment Producer Country	Single/Sole Source	Average lead time to acquire (in days)	Reason For Disruption (If Applicable)	Primary Resolution (If Applicable)	Criticality	Average cost to acquire (\$ Thousands USD)	Comments

Sintered NdFeB Magnet Production									
Equipment	Equipment Producer Name	Equipment Producer Country	Single/Sole Source	Average lead time to acquire (in days)	Reason For Disruption (If Applicable)	Primary Resolution (If Applicable)	Criticality	Average cost to acquire (\$ Thousands USD)	Comments

Bonded NdFeB Magnet Production									
Equipment	Equipment Producer Name	Equipment Producer Country	Single/Sole Source	Average lead time to acquire (in days)	Reason For Disruption (If Applicable)	Primary Resolution (If Applicable)	Criticality	Average cost to acquire (\$ Thousands USD)	Comments

Recycling/Reclamation of NdFeB Permanent Magnets from Waste									
Equipment	Equipment Producer Name	Equipment Producer Country	Single/Sole Source	Average lead time to acquire (in days)	Reason For Disruption (If Applicable)	Primary Resolution (If Applicable)	Criticality	Average cost to acquire (\$ Thousands USD)	Comments

Comments:

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Previous Page		Next Page																																																																	
8. Research & Development/Intellectual Property																																																																			
A.	Has your organization conducted NdFeB Permanent Magnet product related research and development (R&D) from 2017-2021 (and or expects to for 2022-2026)?	If no, proceed to part D below.																																																																	
Record your organization's R&D dollar expenditures and type of R&D expenditure for the 2017-2021 (2022-2026 estimates) period.																																																																			
Record \$ in Thousands, e.g. \$12,000.00 = survey input of \$12																																																																			
B.		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="5">Past</th> <th>Current</th> <th colspan="4">Future</th> </tr> <tr> <th>2017</th> <th>2018</th> <th>2019</th> <th>2020</th> <th>2021</th> <th>2022</th> <th>2023</th> <th>2024</th> <th>2025</th> <th>2026</th> </tr> </thead> <tbody> <tr> <td>1</td> <td style="text-align: center;">\$0</td> <td style="text-align: center;">\$0</td> <td style="text-align: center;">\$0</td> <td style="text-align: center;">\$0</td> <td style="text-align: center;">\$0</td> <td style="text-align: center;">\$0</td> <td style="text-align: center;">\$0</td> <td style="text-align: center;">\$0</td> <td style="text-align: center;">\$0</td> <td style="text-align: center;">\$0</td> </tr> <tr> <td>2</td> <td colspan="10">Basic Research</td> </tr> <tr> <td>3</td> <td colspan="10">Applied Research</td> </tr> <tr> <td>4</td> <td colspan="10">Product/Process Development</td> </tr> </tbody> </table>		Past					Current	Future				2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	2	Basic Research										3	Applied Research										4	Product/Process Development									
		Past					Current	Future																																																											
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Provide your organization's R&D funding sources for 2021 only . Estimates are acceptable. U.S. and Non-U.S. Industry refers to joint ventures or other partnerships with your organization (does not include bonds, IPOs, or other funding sources). In addition, please provide any relevant R&D projects that your organization is currently conducting (or plans to conduct by 2026).																																																																			
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	Other (Specify Here)																																																																		
Total: 0%																																																																			
D.	Did your organization own or use NdFeB Permanent Magnet related intellectual property (IP) from 2017-2021 (and or expects to for 2022-2026)? For original inventors, date of acquisition refers to when the IP was licensed from a regulatory agency. For licensees, date of acquisition refers to when access to the IP was approved. Note, only provide IP which is critical (can not produce without) to the production of NdFeB Permanent Magnets or related products.	If no, proceed to the next section.																																																																	
Record the following: The serial number of the IP your organization utilizes, the organization which owns the IP, and the date of acquisition (can include anticipated acquisition dates).																																																																			
E.	IP Number	Name of IP Owner	Country of IP Owner	Date of Acquisition	Cost of Acquisition (\$ Thousands USD)	Comments																																																													
	Has your organization encountered difficulties in obtaining NdFeB Permanent Magnet related IP? If yes, please explain below.																																																																		
Comments:																																																																			
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9. National Defense/Critical Infrastructure

A.	Since 2017, has your organization directly or indirectly supplied NdFeB Permanent Magnets or related products for incorporation into U.S. critical infrastructure sectors? If no, proceed to part C. If yes, proceed to part B.																																																				
	For 2022-2026, does your organization plan to directly or indirectly supply NdFeB Permanent Magnets or related products for incorporation into U.S. critical infrastructure sectors? If no, proceed to part C. If yes, proceed to part B.																																																				
	For 2017-2021, rank the top three critical infrastructure sectors your organization directly or indirectly supplies NdFeB Permanent Magnets and or related products for. Please do the same for 2022-2026.																																																				
	Definitions of each sector may be found at: https://www.cisa.gov/critical-infrastructure-sectors																																																				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Critical Infrastructure Sector</th> <th style="width: 10%;">(2017-2021)</th> <th style="width: 10%;">(2022-2026)</th> </tr> </thead> <tbody> <tr><td>Chemical Sector</td><td></td><td></td></tr> <tr><td>Commercial Facilities Sector</td><td></td><td></td></tr> <tr><td>Communications Sector</td><td></td><td></td></tr> <tr><td>Critical Manufacturing Sector</td><td></td><td></td></tr> <tr><td>Dams Sector</td><td></td><td></td></tr> <tr><td>Defense Industrial Base Sector</td><td></td><td></td></tr> <tr><td>Emergency Services Sector</td><td></td><td></td></tr> <tr><td>Energy Sector</td><td></td><td></td></tr> <tr><td>Financial Services Sector</td><td></td><td></td></tr> <tr><td>Food and Agriculture Sector</td><td></td><td></td></tr> <tr><td>Government and Facilities Sector</td><td></td><td></td></tr> <tr><td>Healthcare and Public Health Sector</td><td></td><td></td></tr> <tr><td>Information Technology Sector</td><td></td><td></td></tr> <tr><td>Nuclear Reactors, Materials, and Waste Sector</td><td></td><td></td></tr> <tr><td>Transportation Systems Sector</td><td></td><td></td></tr> <tr><td>Waste and Wastewater Systems Sector</td><td></td><td></td></tr> </tbody> </table>	Critical Infrastructure Sector	(2017-2021)	(2022-2026)	Chemical Sector			Commercial Facilities Sector			Communications Sector			Critical Manufacturing Sector			Dams Sector			Defense Industrial Base Sector			Emergency Services Sector			Energy Sector			Financial Services Sector			Food and Agriculture Sector			Government and Facilities Sector			Healthcare and Public Health Sector			Information Technology Sector			Nuclear Reactors, Materials, and Waste Sector			Transportation Systems Sector			Waste and Wastewater Systems Sector			
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C.	How have current market conditions involving the subject product categories affected your ability to meet current U.S. Critical Infrastructure requirements? Please explain below. If no, proceed to part D.																																																				
D.	How have current market conditions involving the subject product categories affected your ability to meet current U.S. Defense requirements? Please explain below. If no, proceed to part E.																																																				
E.	How is your organization ensuring that its sales are compliant with DFARS 225.7018, 10 U.S.C. 2533c, 'The John S. McCain National Defense Authorization Act – NDAA 2019'? Indicate when your organization began this effort (or plans to) and please explain below.																																																				
	Definition/Terms may be found at: https://www.federalregister.gov/documents/2019/04/30/2019-08485/defense-federal-acquisition-regulation-supplement-restriction-on-the-acquisition-of-certain-magnets																																																				
	Comments:																																																				

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10. Competition/Challenges

Does your organization struggle to compete against imports and or exporting abroad? Do you expect the same/similar conditions to persist in the future? If yes, proceed to the next question. If no, please proceed to part B.						
Are any of the input conditions below hindering your organization's ability to compete on price? If yes, answer the following questions below. If no, please proceed to part B.						
Input Condition	Percentage of total operating costs (Estimates Acceptable)	Would changing current government regulations/incentives significantly improve your organization's ability to compete on price?	If Yes, specify the regulation/incentive below	Explain		
Electricity		Yes				
Environmental Regulations		No				
Export Licensing/Regulations		Not Applicable				
Labor						
Sourcing Feedstock Material						
Taxes						
Transportation Costs						
VAT Taxes, Tariffs, and other Trade Duties						
Other (Specify Here)						
Total:	0%					
What single change (and to which portion of the NdFeB Permanent Magnet supply chain) would most significantly improve cost competitiveness by 2026? Please explain to the right.						
Comments:						
Does your organization currently participate in any cooperative production, sourcing, information sharing, and or other agreements with other firms/governments outside of the United States? Do you intend to participate in the future/continue participation? If yes, answer the following questions below. If no, please proceed to Part C.						
Country	Anticipated/Past Start Date (If Applicable)	Anticipated/Past End Date (If Applicable)	Explain			
Comments:						
Is your organization looking to expand its operations domestically (or internationally) between 2022-2026? If yes, answer the following questions below. If no, please proceed to part D. Note, limit market share responses to only activities that your organization performs (i.e. do not provide responses on the market as a whole or in general).						
Country	Current market share (Estimates acceptable)	Anticipated change in market share 2022-2026	Primary challenge to increasing market share (If Applicable)	Explain		
		Increase	Domestic Competition			
		Decrease	Environmental regulations/remediation			
		No Change	Export controls/ITAR & EAR			
		Unknown	Financing/credit availability			
			Foreign Competition			
			Input availability			
			Labor availability/costs			
			Quality of inputs			
			Taxes			
			Trade disputes/tariffs			
Comments:						
Identify the primary challenges/issues affecting your competitive position in the overall [U.S. and non-U.S.] subject product markets. Rank the leading 5 most significant challenges (1 being the most important issue/impact; 2 being the next most important issue/impact, etc.). Explain your response.						
Challenge/Issue		Challenge Experienced?	Rank Top 5	Explain		
1	Aging equipment, facilities, or infrastructure	Yes	1			
2	Aging workforce	No	2			
3	Counterfeit parts		3			
4	Cyber security		4			
5	Domestic competition		5			
6	Environmental regulations/remediation					
7	Export controls/ITAR & EAR					
8	Financing/credit availability					
9	Foreign competition					
10	Government acquisition process					
11	Government purchasing volatility					
12	Government regulatory burden					
13	Healthcare					
14	Industrial espionage - domestic					
15	Industrial espionage - foreign					
16	Input availability					
17	Intellectual property/patent infringement					
18	Labor availability/costs					
19	Natural disasters (including disease/quarantine)					
20	Obsolescence					
21	Pension costs					
22	Proximity to customers					
23	Proximity to suppliers					
24	Qualifications/certifications					
25	Quality of inputs					
26	R&D costs					
27	Reduction in USG demand					
28	Taxes					
29	Trade disputes/tariffs					
30	Worker/skills retention					
31	Other (specify)					
32	Other (specify)					
Identify any impacts or actions resulting from the COVID-19 pandemic at your organization, ranking the three most significant impacts and three most important actions (1 being the most important impact/action; 2 being the next most important impact/action, etc.):						
Impacts Experienced		-Yes/No-	Rank Top 3	Actions Taken	Short Term/Long Term	Rank Top 3
Increased cost of materials		Yes	1	Reduce workforce	Short Term	1
Inability to access work location		No	2	Increase online/remote work capabilities	Long Term	2
Inability to fulfill contracts			3	Seek government assistance	Both	3
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 (specify)				Other (specify)		
Other (specify)				Other (specify)		
Identify any USG actions that could have better mitigated/prevented COVID-19 impacts to your organization:						
Identify any USG actions that will limit future COVID-19-related impacts to your organization:						
Comments:						

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11. 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 NdFeB232@bis.doc.gov. Be sure to retain your survey for your records and to facilitate any necessary edits or clarifications.

Organization Name	0
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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