Next Pag

OMB Control Number: XXXX-XXXX

Expiration Date: June 30, 2022

# 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 Information furnished herewith is deemed confidential and will not be published or disclosed except in accordance with Section 705 of the Defense Production Act of 1950, as amended (50 U.S.C. Sec. 4555).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.

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

Previo	us Page Next Page
	Table of Contents
I	Cover Page
Ш	Table of Contents
- 111	General Instructions
IV	Definitions
1	Organization Information
2a	Production Facilities
2b	Distribution Facilities
3a	U.S. Production
3b	Non-U.S. Production
4a	Sourcing/Feedstock Purchases
4b	NdFeB Permanent Magnet Purchases
5	<u>Sales</u>
6	Employment
7	Capital Expenditures
8	Research & Development/Intellectual Property
9	National Defense/Critical Infrastructure
10	Competition/Challenges
11	Certification
	BUSINESS CONFIDENTIAL - Per Section 705(d) of the Defense Production Act

Prev	ious Page Next Page
	General Instructions
	Your organization is required to complete this survey of the U.S. vanadium industry, which can be downloaded from the BIS website: XXX
Α.	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. <b>DO NOT SUBMIT</b> 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.
В.	<b>DO NOT CUT AND PASTE RESPONSES WITHIN THIS SURVEY OR PASTE IN RESPONSES FROM OUTSIDE THE SURVEY</b> . 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.
С.	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: NdFeB232@bis.doc.gov
	Questions related to the survey should be directed to BIS survey support staff at <u>NdFeB232@bis.doc.gov</u>
E.	E-mail is the preferred method of contact.
	You may speak with a member of the BIS survey support staff by calling (202) 482-0194.
	For questions related to the overall scope of this Section 232 Investigation, contact NdFeB232@bis.doc.gov or:
	Jason D. Bolton
	Program Manager, Industrial Studies
F.	BIS/Export Administration/Office of Technology Evaluation
	Washington, DC 20230
	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
	BUSINESS CONFIDENTIAL - Per Section 705(d) of the Defense Production Act

	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 Unite 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 produ 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. Governmer 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 tes 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 magned 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 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
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 categorie
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, material 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. on 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.

Pre	vious Page							Next Page	
			1. Organization Info	rmation					
	Provide the following information for your organizat	ion. Please select "Other" for "State/Prov	ince" if located outside of the	e U.S.					
	Organization Name								
	Street Address								
	City								
	State/Province								
А.	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 an	y 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.							
				Global	Headquarters				
	Entity Name G	Global Headquarters Street Address	Global Headquarters City	Stat	e/Province	Global Headquarters Country		Ownership %	
				014					
В.									
	Please provide your organization's CAGE, DUNS, and	or NAICS code(s). Blank entries will be co	onsidered as "Not Applicable"	•					
	Commercial and	Deta Universal Numbering Cure							
	Government Entity (CAGE)	Data Universal Numbering Sys	tem (DUNS)		1	NAICS (6-digit) Code(s)			
C.	Code(s)	Code(s)							
	Find CAGE codes at:	Find DUNS numbers	at:			Find NAICS codes at:			
	https://cage.dla.mil/	https://www.dnb.com/duns-numb	er/lookup.html			https://www.census.gov/naics/			
					•		•		
			al and the second second						
	Identify the steps in the NdFeB Permanent Magnet s	upply chain that your organization currer	itly participates in. Please do	not include	standby/idle, clos	sed, or future facilities in this section.			
		Activity				Number of U.S. Facilities	Nun	nber of Non-U.S. Facilities	
	Mining of Rare Earth (RE) Minerals								
	Processing and Separation of Rare Earth (RE) Carbon	ates and Oxides							
	NdFeB Alloy Production								
	Sintering of NdFeB Permanent Magnets								
D.	Bonding of NdFeB Permanent Magnets								
	Importer/Reseller/Distributor of NdFeB Permanent N	Magnets							
	Milling, Cutting, and Coating of NdFeB Permanent M	agnets							
	Integration of NdFeB Permanent Magnets into Asser	nblies/Systems							
	Recycling/Reclamation of Rare Earth Elements (REE)	from Waste							
	Recycling/Reclamation of NdFeB Permanent Magnet	s from Waste							
	End User of NdFeB Permanent Magnets								
	Other	(Spe	ecify Here)						
					•				
	Comments:								
-									
		BUSINESS CONF	IDENTIAL - Per Section 705(	l) of the De	fense Production	Act			

Previous Page         Identify all of your organization's production facilities with NdFeB Permanent Magnet related operations including facilities that are changes that may impact that facility over the next five years. If a given facility has more than one operation, list each operation at a changes that may impact that facility over the next five years. If a given facility has more than one operation, list each operation at a changes that may impact that facility over the next five years. If a given facility has more than one operation, list each operation at a change that may impact that facility over the next five years. If a given facility has more than one operation, list each operation at a change that may impact that facility over the next five years. If a given facility has more than one operation, list each operation at a change that may impact that facility over the next five years. If a given facility has more than one operation, list each operation at a change that may impact that facility over the next five years. If a given facility has more than one operation, list each operation at a change that may impact that facility over the next five years. If a given facility has more than one operation, list each operation at a change that may impact that facility over the next five years. If a given facility has more than one operation, list each operation at a change that may impact that facility over the next five years. If a given facility has more than one operation, list each operation at a change that may impact that facility over the next five years. If a given facility has more than one operation, list each operation at a change that may impact that facility over the next five years. If a given facility has more than one operation at a change that may impact that facility over the next five years. If a given facility has more than one operation, list each operating that that that that that that that the next five years. If a g										
Ider chai	ntify anges	all of your organization's p that may impact that faci	production facilities with lity over the next five yea	NdFeB Permanent Magn ars. If a given facility has m	<b>et related operations</b> inc ore than one operation,	luding facilities that ar list each operation at t				
		Facility Name	City	Location State/Province (Select "Other" if outside the U.S.)	Country	Or				
	1					Minir				
	2					Separation and Pro				
	3					NdFeB				
	4					Bonded NdF				
	6					Recycling/Reclam				
	7					Recycling/Reclan				
Α.	8					IVIAgi				
	9 10									
	11									
	12 13									
	14									
	15 16									
	17									
	18									
	20					_				
Previous Page           Identify all of your organization's production facilities with MdFeB Permanent Magnet related operations including facilities that changes that may impact that facility over the next five years. If a given facility has more than one operation, list each operation           Facility Name         Location         Country           1         City         State/Province (Select "Other" if ourside the U.S.)         Country           3         City         State/Province (Select "Other" if ourside the U.S.)         Country           4         City         State/Province (Select "Other" if ourside the U.S.)         Recycling/Rec           4         City         Separation and Separation an										
lf yc orga	our or anizat	ganization plans to operation does not plan to operation does not plan to ope	ite and or fund new NdFo rate or fund new produc	eB Permanent Magnet or tion facilities between 202 Location	related product production 22-2026, indicate "No" an	on facilities in <b>2022-20</b> Id proceed to the next				
		Facility Name	City	State/Province (Select "Other" if outside the U.S.)	Country	Oţ				
	1					Minir				
	2					Separation and Pro				
	3					NdFeB				
	4					Sintered Nd				
	5					Recycling/Reclam				
В.	7					(RE Recycling/Reclar				
	, 8					Magi				
	9									
	10									
	12									
	13									
	15									
	16									
	18									
	20									
			Comm	ents:						
		Comments:								

		2a. Productio	n Facilities						Ν
e 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 he facility using 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 Operation       Average Annual Operating Cost       Total Facility Capacity (Specified       Average Capacity Utilization Rate       Time to Reach 100%       Cost to Reach 100% Capacity Utilization       Do you anticipate any significant       If yes or unknown.									
	Facility Operation				Facility Capacity	Outlook			
eration Type	Facility Operating Status	Average Annual Operating Cost (Cost of Goods Sold + Operating Expenses) (\$ Thousands USD)	Unit of Measurement	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 br explanation.
g of RE Minerals	Operating		Кg					Yes	
cessing of RE Carbonates and Oxides	Standby/Idle		Metric Ton (MT)					No	
Alloy Production	Closed		Lbs					Unknown	
eB Magnet Production			Short Ton (TN)						
eB Magnet Production			Units						
ation of Rare Earth Elements E) from Waste									
ation of NdFeB Permanent ets from Waste									

	Facility Operation	1			
eration Type	Unit of Measurement	Initial Expected Facility Capacity (Specified Unit)	Full Expected Facility Capacity (Specified Unit)	Expected Start Date	Primary Challenge t (If applicable)
g of RE Minerals	Кg				NdFeB Price
cessing of RE Carbonates and Oxides	Metric Ton (MT)				Loss of Market Share t
Alloy Production	Lbs				Loss of Market Share to Competition
eB Magnet Production	Short Ton (TN)				Declining Dema
B Magnet Production	Units				High Operating C
tion of Rare Earth Elements					COVID-19/Pande
ation of NdFeB Permanent ets from Waste					Other

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

6

# 026, please answer the following: What is the operation type for the facility, the initial expected capacity, the final 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

Start Fa	ctors		
to Start )	Estimated Total Cost to Reach Full Production (\$ Thousands USD)	Previously Allocated Funds to Reach Full Production (\$ Thousands USD)	Explain
o Imports			
o Domestic			
and			
Costs			
emic			

lext	Pa	ge
rief		

Previous	Page							2b. Distribution Facilities						Next Page
Identify a	ll of your organization's o	distribution facilities wit	th NdFeB Permanent Magnet	t related operations	including facilities that are on standby/idle and closed. If	vour organization does not current	ly operate any NdFeB Permanent Magnet related distrib	pution facilities, indicate "No" and proceed to pa	rt B. Provide the <b>LOCATION</b> (U.S. and N	Non-U.S.) of the facility, indicate all ope	ations at each facility using	the drop down menus, and specify any		
changes t	hat may impact that facil	lity over the next five ye	ears. If a given facility has mo	re than one operatio	on, list each operation at the facility and the given operation	on's capacity on separate lines. Not	e, only list facilities that <b>distribute NdFeB Permanent N</b>	lagnets or related products. Do not list any prod	luction facilities. Once completed, plea	ase proceed to Part B.				
			Location			Facility Operation	on			Facility Capacity			0	Dutlook
	Facility Name	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 Exper (\$ Thousands USD)	nses) 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		Кg					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 Other			Short Ton (TN) Units						
6 A. 7														
8 9														
10 11														
12 13														
14 15														
16 17														
18														
20														
		Comn	nents:											
If your or	ganization plans to opera	ate and or fund new Ndf	FeB Permanent Magnet or re	lated product distrib	nution facilities in <b>2022-2026</b> please answer the following	· What is the operation type for the	facility the initial expected throughput capacity the fir							
funds to r	each full throughput cap	acity. If your organizatio	on does not plan to operate of	or fund new distribut	tion facilities between 2022-2026, indicate "No" and proc	eed to the next section. Note, <b>only</b>	list facilities that will distribute NdFeB Permanent Mag	nal expected throughput capacity, the expected s nets or related products. Do not list any product	start date, the primary challenge to stat tion facilities . Once completed, please	rt (if applicable), the estimated total cosponent proceed to the next section.	st to reach full throughput c	apacity, and the previously allocated		
funds to r	each full throughput cap	oacity. If your organizatio	on does not plan to operate o	or fund new distribut	tion facilities between 2022-2026, indicate "No" and proc	eed to the next section. Note, <b>only</b> Facility Operation	list facilities that will distribute NdFeB Permanent Mag	nal expected throughput capacity, the expected s nets or related products. Do not list any product	start date, the primary challenge to stan tion facilities . Once completed, please Start F	rt (if applicable), the estimated total cosponent proceed to the next section.	st to reach full throughput c	apacity, and the previously allocated		
funds to r	each full throughput cap Facility Name	oacity. If your organizatio	on does not plan to operate o Location State/Province (Select "Other" if outside the U.S.)	Country	tion facilities between 2022-2026, indicate "No" and proc	eed to the next section. Note, <b>only</b> Facility Operation Unit of Measurement	Initial Expected Facility Throughput Capacity, the initial Expected Facility Throughput Capacity (Specified Unit)	nal expected throughput capacity, the expected s nets or related products. Do not list any product pected Facility Capacity (Specified Expected Start Date Unit)	start date, the primary challenge to star tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable)	rt (if applicable), the estimated total cosproceed to the next section. Factors Estimated Total Cost to Reach Full Throughput Capacity (\$ Thousands USD)	t to reach full throughput c Previously Allocated Funds to Reach Full Throughput Capacity (\$ Thousands USD)	apacity, and the previously allocated	Explain	
funds to r	each full throughput cap Facility Name	City	on does not plan to operate o Location State/Province (Select "Other" if outside the U.S.)	Country	tion facilities between 2022-2026, indicate "No" and proce         Operation Type         Importer/Reseller/Distributor of NdFeB Permanent         Magnets	Evention type for the eed to the next section. Note, <b>only</b> Facility Operation Unit of Measurement Kg	Initial Expected Facility Throughput Capacity, the magnetic spected throughput Capacity, the magnetic spectre and the spectre of the spectre	nal expected throughput capacity, the expected s nets or related products. Do not list any product pected Facility Capacity (Specified Expected Start Date Unit)	start date, the primary challenge to start tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable) NdFeB Price	rt (if applicable), the estimated total cosproceed to the next section. Factors Estimated Total Cost to Reach Full Throughput Capacity (\$ Thousands USD)	t to reach full throughput c Previously Allocated Funds to Reach Full Throughput Capacity (\$ Thousands USD)	apacity, and the previously allocated	Explain	
funds to r 1 2	each full throughput cap Facility Name	City	on does not plan to operate o Location State/Province (Select "Other" if outside the U.S.)	Country	tion facilities between 2022-2026, indicate "No" and proce         Operation Type         Importer/Reseller/Distributor of NdFeB Permanent         Magnets         Milling, Cutting, and Coating of NdFeB Permanent         Magnets	Evolution type for the eed to the next section. Note, <b>only</b> Facility Operation Unit of Measurement Kg Metric Ton (MT)	Initial Expected Facility Throughput Capacity, the initial Expected Facility Throughput Capacity (Specified Unit)  Full Exp Throughput Capacity (Specified Unit)	nal expected throughput capacity, the expected s nets or related products. Do not list any product Dected Facility Capacity (Specified Expected Start Date Unit)	start date, the primary challenge to start tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable) NdFeB Price Loss of Market Share to Imports	rt (if applicable), the estimated total cosproceed to the next section.  Factors  Estimated Total Cost to Reach Full Throughput Capacity (\$ Thousands USD)	t to reach full throughput c Previously Allocated Funds to Reach Full Throughput Capacity (\$ Thousands USD)	apacity, and the previously allocated	Explain	
funds to r 1 2 3	each full throughput cap Facility Name	City	on does not plan to operate o Location  State/Province (Select "Other" if outside the U.S.)	Country	tion facilities between 2022-2026, indicate "No" and proceed Operation Type Importer/Reseller/Distributor of NdFeB Permanent Magnets Milling, Cutting, and Coating of NdFeB Permanent Magnets Integration of NdFeB Permanent Magnets into Assemblies/Systems	Evolution type for the eed to the next section. Note, <b>only</b> Facility Operation Unit of Measurement Kg Metric Ton (MT) Lbs	Initial Expected Facility Throughput Capacity, the initial Expected Facility Throughput Capacity (Specified Unit)	nal expected throughput capacity, the expected s nets or related products. Do not list any product Dected Facility Capacity (Specified Unit) Unit)	Start date, the primary challenge to start tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable) NdFeB Price Loss of Market Share to Imports Loss of Market Share to Domestic Competition	rt (if applicable), the estimated total cosproceed to the next section.  actors Estimated Total Cost to Reach Full Throughput Capacity (\$ Thousands USD)	to reach full throughput c Previously Allocated Funds to Reach Full Throughput Capacity (\$ Thousands USD)	apacity, and the previously allocated	Explain	
funds to r 1 2 3 4 5	each full throughput cap Facility Name	City	on does not plan to operate o Location  State/Province (Select "Other" if outside the U.S.)	Country	tion facilities between 2022-2026, indicate "No" and proce Operation Type Importer/Reseller/Distributor of NdFeB Permanent Magnets Milling, Cutting, and Coating of NdFeB Permanent Magnets Integration of NdFeB Permanent Magnets into Assemblies/Systems End User of NdFeB Permanent Magnets Other	Evention type for the eed to the next section. Note, only for Facility Operation Unit of Measurement Kg Metric Ton (MT) Lbs Short Ton (TN) Units	Initial Expected Facility Throughput Capacity, the initial Expected Facility Throughput Capacity (Specified Unit)  Full Exp Throughput Capacity (Specified Unit)  Full	nal expected throughput capacity, the expected s nets or related products. Do not list any product Dected Facility Capacity (Specified Unit)	start date, the primary challenge to start tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable) NdFeB Price Loss of Market Share to Imports Loss of Market Share to Domestic Competition Declining Demand High Operating Costs	rt (if applicable), the estimated total cosproceed to the next section.  actors Estimated Total Cost to Reach Full Throughput Capacity (\$ Thousands USD)	to reach full throughput co Previously Allocated Funds to Reach Full Throughput Capacity (\$ Thousands USD)	apacity, and the previously allocated	Explain	
funds to r 1 2 3 4 5 6 8. 7	each full throughput cap	City	on does not plan to operate o  Location  State/Province (Select "Other" if outside the U.S.)	Country	tion facilities between 2022-2026, indicate "No" and processor Operation Type Importer/Reseller/Distributor of NdFeB Permanent Magnets Milling, Cutting, and Coating of NdFeB Permanent Magnets Integration of NdFeB Permanent Magnets into Assemblies/Systems End User of NdFeB Permanent Magnets Other	eed to the next section. Note, only I Facility Operation Unit of Measurement Kg Metric Ton (MT) Lbs Short Ton (TN) Units	Initial Expected Facility Throughput Capacity, the initial Expected Facility Throughput Capacity (Specified Unit)  Full Exp Throughput Capacity (Specified Unit)  Full	nal expected throughput capacity, the expected s nets or related products. Do not list any product Dected Facility Capacity (Specified Unit) Expected Start Date Unit)	Start date, the primary challenge to start tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable) NdFeB Price Loss of Market Share to Imports Loss of Market Share to Domestic Competition Declining Demand High Operating Costs COVID-19/Pandemic Other	rt (if applicable), the estimated total cosproceed to the next section.  actors Estimated Total Cost to Reach Full Throughput Capacity (\$ Thousands USD)	to reach full throughput controls of the reach full throughput controls of the reach full throughput Capacity (\$ Thousands USD)	apacity, and the previously allocated	Explain	
funds to r 1 2 3 4 5 6 8 7 8 9	each full throughput cap Facility Name	City	on does not plan to operate o  Location  State/Province (Select "Other" if outside the U.S.)	Country	tion facilities between 2022-2026, indicate "No" and proceed Operation Type Importer/Reseller/Distributor of NdFeB Permanent Magnets Milling, Cutting, and Coating of NdFeB Permanent Magnets Integration of NdFeB Permanent Magnets into Assemblies/Systems End User of NdFeB Permanent Magnets Other Other	eed to the next section. Note, only I Facility Operation Unit of Measurement Kg Metric Ton (MT) Lbs Short Ton (TN) Units	Initial Expected Facility Throughput Capacity, the initial Expected Facility Throughput Capacity (Specified Unit)  Full Exp Throughput Capacity (Specified Unit)  Full	nal expected throughput capacity, the expected s nets or related products. Do not list any product Dected Facility Capacity (Specified Unit) Expected Start Date Unit)	start date, the primary challenge to start tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable) NdFeB Price Loss of Market Share to Imports Loss of Market Share to Domestic Competition Declining Demand High Operating Costs COVID-19/Pandemic Other	rt (if applicable), the estimated total cosproceed to the next section.  actors Estimated Total Cost to Reach Full Throughput Capacity (\$ Thousands USD)	to reach full throughput controls of the second sec	apacity, and the previously allocated	Explain	
funds to r 1 2 3 4 5 6 8 9 10	each full throughput cap	City	on does not plan to operate o  Location  State/Province (Select "Other" if outside the U.S.)	Country	tion facilities between 2022-2026, indicate "No" and proceeding of the following of the fol	eed to the next section. Note, only I Facility Operation Unit of Measurement Kg Metric Ton (MT) Lbs Short Ton (TN) Units	Initial Expected Facility Throughput Capacity, the initial Expected Facility Throughput Capacity, the initial Expected Facility Throughput Capacity (Specified Unit)  Full Exp Throughput Capacity (Specified Unit)	hal expected throughput capacity, the expected s nets or related products. Do not list any product bected Facility Capacity (Specified Unit) Capacity (Specified Capacity (	start date, the primary challenge to start tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable) NdFeB Price Loss of Market Share to Imports Loss of Market Share to Domestic Competition Declining Demand High Operating Costs COVID-19/Pandemic Other	rt (if applicable), the estimated total cosproceed to the next section.  actors Estimated Total Cost to Reach Full Throughput Capacity (\$ Thousands USD) (\$ Thousands USD)	to reach full throughput controls of the reach full throughput capacity funds to Reach Full Throughput Capacity (\$ Thousands USD)	apacity, and the previously allocated	Explain	
funds to r 1 2 3 4 5 6 7 8 9 10 11 12	each full throughput cap Facility Name	City	on does not plan to operate o  Location  State/Province (Select "Other" if outside the U.S.)	Country	tion facilities between 2022-2026, indicate "No" and proceeding         Operation Type         Importer/Reseller/Distributor of NdFeB Permanent         Magnets         Milling, Cutting, and Coating of NdFeB Permanent         Magnets         Integration of NdFeB Permanent Magnets         Integration of NdFeB Permanent Magnets         Other         Other         Magnets	eed to the next section. Note, only I Facility Operation Unit of Measurement Kg Metric Ton (MT) Lbs Short Ton (TN) Units	Initial Expected Facility Throughput Capacity, the in Full Exp Full Exp Capacity (Specified Unit) Full Exp Throughput of Full Exp Full Exp	hal expected throughput capacity, the expected s nets or related products. Do not list any product Dected Facility Capacity (Specified Unit) Capacity (Specified Capacity (	start date, the primary challenge to start tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable) NdFeB Price Loss of Market Share to Imports Loss of Market Share to Domestic Competition Declining Demand High Operating Costs COVID-19/Pandemic Other	rt (if applicable), the estimated total cosproceed to the next section.  actors Estimated Total Cost to Reach Full Throughput Capacity (\$ Thousands USD) (\$ Thousands USD)	to reach full throughput controls of the second sec	apacity, and the previously allocated	Explain	
funds to r 1 2 3 4 5 6 8 9 10 11 12 13 14	each full throughput cap Facility Name	City	on does not plan to operate o  Location  State/Province (Select "Other" if outside the U.S.)	Country	tion facilities between 2022-2026, indicate "No" and process         Operation Type         Importer/Reseller/Distributor of NdFeB Permanent         Magnets         Milling, Cutting, and Coating of NdFeB Permanent         Magnets         Integration of NdFeB Permanent Magnets         Integration of NdFeB Permanent Magnets         End User of NdFeB Permanent Magnets         Other         Importer of NdFeB Permanent Magnets	eed to the next section. Note, only I Facility Operation Unit of Measurement Kg Metric Ton (MT) Lbs Short Ton (TN) Units	Initial Expected Facility Throughput Capacity, the initial Expected Facility Throughput Capacity (Specified Unit)  Full Exp Throughput Capacity (Specified Unit)  Full	hal expected throughput capacity, the expected senets or related products. Do not list any product pected Facility Capacity (Specified Unit) Capacity (Specified Capacity (S	start date, the primary challenge to start tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable) NdFeB Price Loss of Market Share to Imports Loss of Market Share to Domestic Competition Declining Demand High Operating Costs COVID-19/Pandemic Other 0	rt (if applicable), the estimated total cosproceed to the next section.	Previously Allocated Funds to Reach Full Throughput Capacity (\$ Thousands USD)	apacity, and the previously allocated	Explain	
funds to r 1 2 3 4 5 6 8 9 10 11 12 13 14 15 16	each full throughput cap Facility Name	City	on does not plan to operate o  Location  State/Province (Select "Other" if outside the U.S.)	Country	Junction facilities between 2022-2026, indicate "No" and proceeding         Operation Type         Importer/Reseller/Distributor of NdFeB Permanent         Magnets         Milling, Cutting, and Coating of NdFeB Permanent         Magnets         Integration of NdFeB Permanent Magnets into         Assemblies/Systems         End User of NdFeB Permanent Magnets         Other         Other	eed to the next section. Note, only I Facility Operation Unit of Measurement Kg Metric Ton (MT) Lbs Short Ton (TN) Units	Initial Expected Facility Throughput Capacity, the initial Expected Facility Throughput Capacity (Specified Unit)  Full Exp Throughput O Throughput	hal expected throughput capacity, the expected senets or related products. Do not list any product Dected Facility Capacity (Specified Unit) Capacity (Specified Unit) Capacity (Specified Capacity (Specified) Capacity (Specified) Capac	start date, the primary challenge to start tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable) NdFeB Price Loss of Market Share to Imports Loss of Market Share to Domestic Competition Declining Demand High Operating Costs COVID-19/Pandemic Other Other	rt (if applicable), the estimated total cosproceed to the next section.	Previously Allocated Funds to Reach Full Throughput Capacity (\$ Thousands USD)	apacity, and the previously allocated	Explain	
funds to r 1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	each full throughput cap Facility Name	City	on does not plan to operate o  Location  State/Province (Select "Other" if outside the U.S.)	Country	Joint Identites in 2022 2026, indicate "No" and proceedings         Importer/Reseller/Distributor of NdFeB Permanent         Magnets         Milling, Cutting, and Coating of NdFeB Permanent         Magnets         Integration of NdFeB Permanent Magnets         End User of NdFeB Permanent Magnets         Other         Other	eed to the next section. Note, only I Facility Operation Unit of Measurement Kg Metric Ton (MT) Lbs Short Ton (TN) Units	Initial Expected Facility Throughput Capacity, the milist facilities that will distribute NdFeB Permanent Magi Initial Expected Facility Throughput Capacity (Specified Unit)  Full Exp Throughput distribute NdFeB Permanent Magi Full Exp Full Exp Throughput distribute NdFeB Permanent Magi Full Exp Full Exp F	hal expected throughput capacity, the expected so nets or related products. Do not list any product bected Facility Capacity (Specified Unit) Linit) Linit Lini	start date, the primary challenge to start tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable) NdFeB Price Loss of Market Share to Imports Loss of Market Share to Domestic Competition Declining Demand High Operating Costs COVID-19/Pandemic Other Other	rt (if applicable), the estimated total cosproceed to the next section.	Previously Allocated Funds to Reach Full Throughput Capacity (\$ Thousands USD)	apacity, and the previously allocated	Explain	
funds to r 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 10	each full throughput cap Facility Name	City	on does not plan to operate o  Location  State/Province (Select "Other" if outside the U.S.)	Country	tion facilities between 2022-2026, indicate "No" and proc         Operation Type         Importer/Reseller/Distributor of NdFeB Permanent         Magnets         Milling, Cutting, and Coating of NdFeB Permanent         Magnets         Integration of NdFeB Permanent Magnets into         Assemblies/Systems         End User of NdFeB Permanent Magnets         Other         Milling         Milling         Integration of NdFeB Permanent Magnets         Integration of NdFeB Permanent Magnets         Assemblies/Systems         End User of NdFeB Permanent Magnets         Other         Integration of NdFeB Permanent Magnets         Integration of NdFeB Permanent Magnets <td>eed to the next section. Note, only I Facility Operation Unit of Measurement Kg Metric Ton (MT) Lbs Short Ton (TN) Units</td> <td>Initial Expected Facility Throughput Capacity, the in Initial Expected Facility Throughput Capacity (Specified Unit)  Full Exp Throughput of Capacity (Specified Unit)  Full Exp Throughput of Full Exp Throughput</td> <td>hal expected throughput capacity, the expected so nets or related products. Do not list any product Dected Facility Capacity (Specified Unit) Expected Start Date Unit) Capacity (Specified Unit) Capacity (Specified Unit) Capacity (Specified Capacity (Specified Capacity</td> <td>start date, the primary challenge to start tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable) NdFeB Price Loss of Market Share to Imports Loss of Market Share to Domestic Competition Declining Demand High Operating Costs COVID-19/Pandemic Other Other</td> <td>rt (if applicable), the estimated total cosproceed to the next section.</td> <td>Previously Allocated Funds to Reach Full Throughput Capacity (\$ Thousands USD)</td> <td>apacity, and the previously allocated</td> <td>Explain</td> <td></td>	eed to the next section. Note, only I Facility Operation Unit of Measurement Kg Metric Ton (MT) Lbs Short Ton (TN) Units	Initial Expected Facility Throughput Capacity, the in Initial Expected Facility Throughput Capacity (Specified Unit)  Full Exp Throughput of Capacity (Specified Unit)  Full Exp Throughput of Full Exp Throughput	hal expected throughput capacity, the expected so nets or related products. Do not list any product Dected Facility Capacity (Specified Unit) Expected Start Date Unit) Capacity (Specified Unit) Capacity (Specified Unit) Capacity (Specified Capacity	start date, the primary challenge to start tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable) NdFeB Price Loss of Market Share to Imports Loss of Market Share to Domestic Competition Declining Demand High Operating Costs COVID-19/Pandemic Other Other	rt (if applicable), the estimated total cosproceed to the next section.	Previously Allocated Funds to Reach Full Throughput Capacity (\$ Thousands USD)	apacity, and the previously allocated	Explain	
funds to r 1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	each full throughput cap Facility Name	City	on does not plan to operate o  Location  State/Province (Select "Other" if outside the U.S.)	Country	International cost for cost of the following tion facilities between 2022-2026, indicate "No" and proceeding of the following of	eed to the next section. Note, only I Facility Operation Unit of Measurement Kg Metric Ton (MT) Lbs Short Ton (TN) Units	Initial Expected Facility Throughput Capacity, the in Initial Expected Facility Throughput Capacity (Specified Unit)  Full Exp Throughput of Initial Expected Facility Throughput Capacity (Specified Unit)  Full Exp Throughput of Initial Expected Facility Throughput Initial Expected Facility Throughput Initial Expected Facility Throughput Initial Expected Facility Throughput Capacity (Specified Unit)  Full Exp Throughput of Initial Expected Facility Throughput Initial Exp	hal expected throughput capacity, the expected so nets or related products. Do not list any product bected Facility Capacity (Specified Unit) Expected Start Date Unit) Capacity (Specified Unit) Capacity (Specified Unit) Capacity (Specified Capacity	start date, the primary challenge to start tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable) NdFeB Price Loss of Market Share to Imports Loss of Market Share to Domestic Competition Declining Demand High Operating Costs COVID-19/Pandemic Other Other	rt (if applicable), the estimated total cosproceed to the next section.	Previously Allocated Funds to Reach Full Throughput Capacity (\$ Thousands USD)	apacity, and the previously allocated	Explain	
funds to r 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 	each full throughput cap Facility Name	Comn	Image: Second	Country	International cost of the following tion facilities between 2022-2026, indicate "No" and proceeding the following of the followi	eed to the next section. Note, only I Facility Operation Unit of Measurement Kg Metric Ton (MT) Lbs Short Ton (TN) Units	Initial Expected Facility Throughput Capacity, the in Initial Expected Facility Throughput Capacity (Specified Unit)  Full Exp Throughput (  Full Exp  Throughput (  Full E	hal expected throughput capacity, the expected so nets or related products. Do not list any product bected Facility Capacity (Specified Unit) Expected Start Date Intervention of the second sec	start date, the primary challenge to start tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable) NdFeB Price Loss of Market Share to Imports Loss of Market Share to Domestic Competition Declining Demand High Operating Costs COVID-19/Pandemic Other Other	rt (if applicable), the estimated total cosproceed to the next section.	Previously Allocated Funds to Reach Full Throughput Capacity (\$ Thousands USD)	apacity, and the previously allocated	Explain	
funds to r 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 	each full throughput cap Facility Name Comments:	City	Image: Second	Country	Ition facilities between 2022-2026, indicate "No" and process         Operation Type         Importer/Reseller/Distributor of NdFeB Permanent         Magnets         Milling, Cutting, and Coating of NdFeB Permanent         Magnets         Integration of NdFeB Permanent Magnets into         Assemblies/Systems         End User of NdFeB Permanent Magnets         Other         Other         Other	Evention to the operation type for the eed to the next section. Note, only I Facility Operation Unit of Measurement   Kg   Metric Ton (MT)   Lbs   Short Ton (TN)   Units	Initial Expected Facility Throughput Capacity, the main expected throughput Capacity, the main expected facility Throughput Capacity (Specified Unit)  Full Exp Throug	hal expected throughput capacity, the expected so nets or related products. Do not list any product expected so that are products and products are product of the second solution of th	start date, the primary challenge to start tion facilities . Once completed, please Start F Primary Challenge to Start (If applicable) NdFeB Price Loss of Market Share to Imports Loss of Market Share to Domestic Competition Declining Demand High Operating Costs COVID-19/Pandemic Other	rt (if applicable), the estimated total cosproceed to the next section.  actors  Estimated Total Cost to Reach Full Throughput Capacity (\$ Thousands USD)	Previously Allocated Funds to Reach Full Throughput Capacity (\$ Thousands USD)	apacity, and the previously allocated	Explain	

					N
U.S. and No eted, pleas	on-U.S.) of the facility, indicate all oper se proceed to Part B.	ations at each facility using	the drop down menus, and specify any		
	Facility Capacity			0	utlook
ility pecified	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 br explanation.
				Yes	
				No	
				Unknown	

Indic	ate if your organization produced (or plans to produce) NdFeB Per	manent Magnets or	related products be	tween <b>2017-2</b>	3a. U.S 2021 (and 2022	. Productio -2026 expe	n cted) in the United States.	If your organization only distribute	ed the followir	ng products, inc	licate "No" an	d proceed to th	<u>Next Page</u> ne next
Has v br re	on. your organization produced, is currently producing, and or plans to lated products <b>in the United States</b> ? If "No", please proceed to th	o produce NdFeB Pe e next section.	rmanent Magnets		Do not inclu	de facilities	that solely distribute, impo	ort, or export. Only include faciliti	es that produc	e NdFeB Perm	anent Magnet	s and or relate	ed products.
	Select "No" if category is not relevant to your operations Unit of Measurement			(Specify He	Mining of Ra	re Earth (R	E) Minerals						
		2017	Actual Product 2018	ion from TREC	2020	2021	Economic Vi Average Cost per Unit to Produce	ability (2021 Only) Capacity Utilization Needed to Remain Profitable	2022	Estimated	Production fr 2024	om TREO 2025	2026
٨	Total Rare Earth Oxides (TREO) Total Production (U.S. Facilities)						(\$ USD)						
Α.	(% of Rare Earth El 1 Dysprosium 2 Neodymium	ements (REE) contai	ned in TREO)						(% c	of Rare Earth El	ements (REE) (	contained in TR	(EO)
	3       Praseodymium         4       Terbium         5       Other Rare Earth Element (REE)       (Specify Here)         6       Other Pare Earth Element (REE)       (Specify Here)												
	Comments:	0%	0%	0%	0%	0%			0%	0%	0%	0%	0%
	Select "No" if category is not relevant to your operations Unit of Measurement		Rec	ycling/Reclam (Specify He	ere if Other)	arth Eleme	nts (REE) from Waste Mate	rial					
		2017	2018	2019	2020	2021	Average Cost per Unit to Recycle (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
В.	Primary Waste Material Utilized Total REE Production (U.S. Facilities) (Specify Here)						(+ 002)						
	(% of Rare Earth Elemer 1 Dysprosium 2 Neodymium	nts (REE) contained i	n Waste Material)						(% of Rar	e Earth Elemer	ts (REE) conta	ined in Waste	Material)
	<ul> <li>3 Praseodymium</li> <li>4 Terbium</li> <li>5 Other Rare Earth Element (REE) (Specify Here)</li> <li>6 Other Bare Earth Element (REE) (Specify Here)</li> </ul>												
	Comments:	0%	0%	0%	0%	0%			0%	0%	0%	0%	0%
	Select "No" if category is not relevant to your operations Unit of Measurement			Separati (Specify He	ere if Other)	ing of RE C	arbonates and Oxides						
		2017	Actual Pr 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: Select "No" if category is not relevant to your operations				NdFeB Allo	oy/Metal P	roduction						
	Unit of Measurement		Actual Pr	(Specify He oduction	ere if Other)		Economic Vi Average Cost per Unit to	ability (2021 Only) Capacity Utilization Needed to		Esti	mated Produc	ion	
D.	Total Production (U.S. Facilities)	2017	2018	2019	2020	2021	Produce (\$ USD)	Remain Profitable	2022	2023	2024	2025	2026
	<ul> <li>2 Dy Metal</li> <li>3 NdPr Metal</li> <li>4 Pr Metal</li> </ul>												
	5     Other REE Metals     (Specify Here)       Comments:			Sint	arad NdEaB Da	rmanont M	lagnot Production						
	Select "No" if category is not relevant to your operations Unit of Measurement		Actual Pr	(Specify He	ere if Other)			ability (2021 Only)		Esti	mated Produc	ion	
		2017	2018	2019	2020	2021	Average Cost per Unit to Produce/Recycle (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
	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												
E.	16       N41H-N45H         17       N46H-N50H         18       N51H-N55H         19       N25SH-N30SH												
	20       N31SH-N35SH         21       N36SH-N40SH         22       N41SH-N45SH												
	<ul> <li>23 N46SH-N50SH</li> <li>24 N51SH-N55SH</li> <li>25 N25UH-N30UH</li> <li>26 N25UH-N30UH</li> </ul>												
	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       N545EH												
	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:												
	Select "No" if category is not relevant to your operations Unit of Measurement		A	Bor (Specify He	ere if Other)	manent M	agnet Production	ability (2021 Only)			matod David	ion	
		2017	Actual Pr 2018	2019	2020	2021	Average Cost per Unit to Produce/Recycle (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
	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												
F.	9 9 MGOe 10 10 MGOe 11 11 MGOe												
	12       MGOe         13       1H MGOe         14       2H MGOe												
	15       3H MGOe         16       4H MGOe         17       5H MGOe         18       GU MGO												
	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:												

<u>Prev</u> ndio	cate if your organization produced (or plans to produce) NdFeB Per	manent Magnets or	related products be	etween <b>2017-2</b>	<b>3b. Non-U</b> 2021 (and 2022	J.S. Product -2026 expe	tion ected) outside the United St	ates. If your organization only dis	tributed the fo	llowing produc	ts, indicate "N	o" and procee	<u>Next Page</u> d to the next
las	ion. your organization produced, is currently producing, and or plans to	produce NdFeB Pe	manent Magnets		Do not inclu	de facilities	that solely distribute, impo	ort, or export. Only include faciliti	es that produc	ce NdFeB Perm	anent Magnet	s and or relate	ed products.
	Select "No" if category is not relevant to your operations				Mining of Ra	re Earth (R	E) Minerals						
	Unit of Measurement	2017	Actual Product 2018	(Specify He ion from TREC 2019	ere if Other) D 2020	2021	Economic Vi Average Cost per Unit to Produce	ability (2021 Only) Capacity Utilization Needed to Remain Profitable	2022	Estimated	l Production fi 2024	om TREO 2025	2026
A.	Total Rare Earth Oxides (TREO) Total Production (Non-U.S. Facilities) (% of Rare Earth Ele	ements (REE) contai	ned in TREO)				(3 030)		(% c	of Rare Earth El	ements (REE)	contained in TF	REO)
	1     Dysprosium       2     Neodymium       3     Praseodymium       4     Tarkium												
	4       Terblum         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:		Rec	ycling/Reclam	nation of Rare E	arth Eleme	nts (REE) from Waste Mate	erial					
	Unit of Measurement		Actual Production f	(Specify He rom Waste Ma	ere if Other) aterial		Economic Vi	ability (2021 Only)		Estimated Pro	duction from \	Vaste Material	
	Primary Waste Material Utilized Total REE Production (Non-U.S. Facilities) (Specify Here)	2017	2018	2019	2020	2021	Recycle (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
В.	(% of Rare Earth Elemen	ts (REE) contained i	n Waste Material)						(% of Rar	re Earth Elemer	nts (REE) conta	ined in Waste	Material)
	2 Neodymium     3 Praseodymium     4 Terbium     5 Other Bare Earth Element (BEE)     (Specify Here)												
	6 Other Rare Earth Element (REE) (Specify Here) Total:	0%	0%	0%	0%	0%			0%	0%	0%	0%	0%
	Select "No" if category is not relevant to your operations			Separat	ion and Process	sing of RE C	arbonates and Oxides						
		2017	Actual Pr 2018	oduction 2019	2020	2021	Economic Vi Average Cost per Unit to Produce	ability (2021 Only) Capacity Utilization Needed to	2022	Esti	mated Produc	tion 2025	2026
C.	Total Production (Non-U.S. Facilities)           1         Nd Oxide						(\$ USD)	Remain Profitable					
	<ul> <li>2 Dy Oxide</li> <li>3 NdPr Oxide</li> <li>4 Pr Oxide</li> <li>5 Other REE Ovides</li> </ul>												
	Comments:				NdFeB Allo	oy/Metal P	roduction						
	Select "No" if category is not relevant to your operations Unit of Measurement		Actual Pr	(Specify H	ere if Other)		Economic Vi	ability (2021 Only)		Esti	mated Produc	tion	
D.	Total Production (Non-U.S. Facilities) 1 Nd Metal	2017	2018	2019	2020	2021	Average Cost per Unit to Produce (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
	2       Dy Metal         3       NdPr Metal         4       Pr Metal         5       Other REE Metals         (Specify Here)												
	Comments: Select "No" if category is not relevant to your operations			Sint	ered NdFeB Pe	rmanent M	lagnet Production						
	Unit of Measurement		Actual Pr	(Specify He oduction	ere if Other)		Economic Vi Average Cost per Unit to	ability (2021 Only)		Esti	mated Produc	tion	
	Total Production (Non-U.S. Facilities)	2017	2018	2019	2020	2021	Produce (\$ USD)	Capacity Utilization Needed to Remain Profitable	2022	2023	2024	2025	2026
	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       N21H N25H												
	14       N31H-N35H         15       N36H-N40H         16       N41H-N45H         17       N46H-N50H												
E.	18       N51H-N55H         19       N25SH-N30SH         20       N31SH-N35SH												
	21       N36SH-N40SH         22       N41SH-N45SH         23       N46SH-N50SH												
	24 N515H-N555H 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         24       N44EU N45EU												
	34       N41EH-N45EH         35       N46EH-N50EH         36       N51EH-N55EH         37       N25AH-N30AH												
	38       N31AH-N35AH         39       N36AH-N40AH         40       N41AH-N45AH												
	41N46AH-N50AH42N51AH-N55AH43Other(Specify Here)												
	Comments: Select "No" if category is not relevant to your operations			Bor	nded NdFeB Pe	rmanent M	agnet Production						
	Unit of Measurement		Actual Pr	(Specify H oduction	ere if Other)		Economic Vi Average Cost per Unit to	ability (2021 Only)		Esti	mated Produc	tion	
	Total Production (Non-U.S. Facilities)	2017	2018	2019	2020	2021	Produce (\$ USD)	Remain Profitable	2022	2023	2024	2025	2026
	Mega Gauss Oersted (MGOe)          1       1 MGOe         2       2 MGOe         3       MGOo												
	4         4 MGOe           5         5 MGOe           6         6 MGOe												
F.	7       MGOe         8       MGOe         9       9 MGOe												
	10       10 MGOe         11       11 MGOe         12       12 MGOe												
	13       14       NGOe         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:												

<u>Prev</u>	ious Page				
Did supp purc	your organization purchase <b>feedstocks</b> whi liers, rank them by volume of purchases ov hases which do not include value-add activ	ich were used to produce l ver the 2017-2026 period ( vities).	NdFeB Permanent Magne greatest to least). <b>For 20</b>	ts or related products betv 22-2026, limit your respor	Ne IS
	Select "No" if category is not relevant to y	our operations			
	Unit of Measurement				
	Supplier Name	Country of Purchase (Location of Feedstock)	Single/Sole Source?	10-Digit HTSUS Code (If Known)	
Α.	1		Single Source		٦
	2		Sole Source		
	3 4		Neither		
	5				
	7				
	9				
			Comments:		
	Select "No" if category is not relevant to y Unit of Measurement	our operations			
	Supplier Name	Country o (Location of	f Purchase f Feedstock)	Type of REE O	×i
	1			Nd C	)x
В.	3			Dy O NdPr	0: 0
	4 5			Pr O Other RE	xi E
	6 7				
	8				
	10				_
			Comments:		
	Select "No" if category is not relevant to y	our operations			
	Unit of Measurement				
	Supplier Name	Country o (Location of	f Purchase f Feedstock)	Type of REE M	et
	1			Nd M	1e
C.	3			NdPr	M
	5			Find	bc
	6 7			1001 Other RE	S <sup>i</sup> E
	8 9			Waste N	<b>√</b> i
	10		<b>a</b>		
			comments:		
	Select "No" if category is not relevant to y Unit of Measurement	our operations			
	Supplier Name	Country o (Location of	f Purchase f Feedstock)	Type of REE M	et
	1			NdFeB I	Po
D.	3			1001	St
	4 5			Waste N	Vla
	6 7				
	8 9				
	10				
			Comments:		
	Comments:				
<u>د ا</u>					_

							Δ	la. Sourcing/Feedst	ock Purchases																	<u>Next Page</u>
en 2017-2021 (and 20	022-2026 expected)? If yes, answer the following que	estions below for	r each of your orga	anization's suppliers. If no, pl	lease proceed to the nex	t section. If your organization h	as more than ten																			
es to signed contracts	s and memorandums of understanding (MOUs). Do	o not include spe	eculative/desired f	feedstock purchases. Note,	do not include any pure	chases which were intended fo	<b>r resale</b> (i.e.																			
							Separatio	on and Processing of	f RE Carbonates ar	ıd Oxides																
							(Purchases	s of Total Rare Earth	Oxides and Waste	e Material)																
			TREO Content	t (% of REE contained in TRE	0) or	Total:	2017	2017	(Specify H 2018	lere if Other) 2018	2019	2019	2020	2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026
		(%	of Rare Earth Elem	nents (REE) contained in Was	ste Material)	Other																				
Feedstock Type	Specify Waste Material Top Factor Influencing (If Applicable) Purchase	sium	nium	/mium	E	Here) Here)		Value		Value		Value		Value		Value		Value		Value		Value		Value		Value
		) yspro	Veodyr	aseody	Terbi	pecify	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)
otal Rare Earth Oxide	25 Financial Consideration	_		<u>د</u>		S S																				
(TREO)	Financial Consideration																									
	Relationship																									
	Delivery Other																									
								NdFeB Alloy/Me	etal Production																	
						Totals	2017	2017	(Specify H 2018	lere if Other) 2018	2019	2019	2020	2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026
le Feedstock	Specify Other REE Oxides	Single/Sol	le Source?	10-Digit HTSL (If Know	JS Code	Ton Factor Influencing		Value		Value		Value		Value		Value		Value		Value		Value		Value		Value
						Purchase	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)
de de		Single Sole S	Source Source			Financial Consideration Technical Specification																				
kide de		Nei	ither			Relationship Delivery																				
Oxides						Other																				
								Sintered NdFeB Ma	agnet Production																	
							1		(Specify H	lere if Other)					1											
	Specify Other REE Metals/Waste Material			10-Digit HTSUS Code	Percent of Recycled	Total:	2017	2017	2018	2018	2019	2019	2020	2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026
al Feedstock	(If Applicable)	Single/Sol	le Source?	(If Known)	Material	Top Factor Influencing Purchase	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands
tal		Single	Source			Financial Consideration																				USDJ
etal		Nei	ither			Relationship																				
ron						Other																				
Metals																										
						1																				
								Bonded NdFeB Ma	agnet Production																	
						Total:	2017	2017	2018	2018	2019	2019	2020	2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026
al Feedstock	Specify Other REE Metals/Waste Material (If Applicable)	Single/Sol	le Source?	10-Digit HTSUS Code (If Known)	Percent of Recycled Material	Top Factor Influencing	Volumo	Value	Volumo	Value	Volumo	Value	Volumo	Value	Volumo	Value	Volumo	Value	Volumo	Value	Volumo	Value	Volumo	Value (\$ Thousands	Volumo	Value (\$ Thousands
wdor		Single	Sourco			Purchase	volume	USD)	volume	(\$ Thousands USD)	volume	USD)	volume	USD)	volume	USD)	volume	(\$ Thousands USD)	volume	USD)	volume	(\$ Mousands USD)	volume	USD)	volume	USD)
ron		Sole S	Source			Technical Specification																				
iterial						Delivery																				
						DUC		TIAL - Dor Costion 70	15(d) of the Dofer	a Droduction Act																
						DUS			Jay of the Delens																	

Type of Magnet Purchas           N25-N30           N51-N55           N25M-N30M           N51M-N55M           N25H-N30H           N51H-N55H           N25SH-N30SH           N51SH-N55SH           N25UH-N30UH           N51UH-N55UH           N25EH-N30EH           N25EH-N30EH           N51EH-N55EH           N25AH-N30AH           N51AH-N55AH
Type of Magnet Purchas           N25-N30           N51-N55           N25M-N30M           N51M-N55M           N25H-N30H           N51H-N55H           N25SH-N30SH           N51SH-N55SH           N25UH-N30UH           N51UH-N55UH           N25EH-N30EH           N25EH-N30EH           N51EH-N55EH           N25AH-N30AH           N51AH-N55AH
N25-N30 N51-N55 N25M-N30M N51M-N55M N25H-N30H N51H-N55H N25SH-N30SH N51SH-N55SH N25UH-N30UH N51UH-N55UH N25EH-N30EH N25EH-N30EH N25AH-N30AH N51AH-N55AH
N51-N55           N25M-N30M           N51M-N55M           N25H-N30H           N51H-N55H           N25SH-N30SH           N51SH-N55SH           N25UH-N30UH           N51UH-N55UH           N25EH-N30EH           N51EH-N55EH           N25AH-N30AH           N51AH-N55AH
N25M-N30M N51M-N55M N25H-N30H N51H-N55H N25SH-N30SH N51SH-N55SH N25UH-N30UH N51UH-N55UH N25EH-N30EH N51EH-N55EH N25AH-N30AH N51AH-N55AH
N51M-N55M N25H-N30H N51H-N55H N25SH-N30SH N51SH-N55SH N25UH-N30UH N51UH-N55UH N25EH-N30EH N51EH-N55EH N25AH-N30AH N51AH-N55AH
N25H-N30H N51H-N55H N25SH-N30SH N51SH-N55SH N25UH-N30UH N51UH-N55UH N25EH-N30EH N51EH-N55EH N25AH-N30AH N51AH-N55AH
N51H-N55H N25SH-N30SH N51SH-N55SH N25UH-N30UH N51UH-N55UH N25EH-N30EH N51EH-N55EH N25AH-N30AH N51AH-N55AH
N25SH-N30SH N51SH-N55SH N25UH-N30UH N51UH-N55UH N25EH-N30EH N51EH-N55EH N25AH-N30AH N51AH-N55AH
NSISH-NSSSH N25UH-N30UH N51UH-N55UH N25EH-N30EH N51EH-N55EH N25AH-N30AH N51AH-N55AH
N250H-N300H N51UH-N55UH N25EH-N30EH N51EH-N55EH N25AH-N30AH N51AH-N55AH
N25EH-N30EH N51EH-N55EH N25AH-N30AH N51AH-N55AH
N51EH-N55EH N25AH-N30AH N51AH-N55AH
N25AH-N30AH N51AH-N55AH
N51AH-N55AH
Type of Magnet Purchas
1 MGOe
12 MGOe
1H MGOe
12H MGOe
-

							4b. NdFeB Permar	ne
nd 2022-2026 expected	)? If yes, answer the following qu	estions below for each of yo	ur organization's suppliers	. If no, please proceed to the r	next section. If			
greatest to least). For 2	2022-2026, limit your responses to	o signed contracts and mem	orandums of understandin	g (MOUs). Do not include spec	culative/desired			
led for resale as a differ	rent product).							
							Sintered NdF	eE
							(Specify He	ere
					2017	2017	2018	Γ
				Total:				Г
net Purchased	Single/Sole Source?	10-Digit HTSUS Code	Operation Type			Value		t
		(If Known)		Top Factor Influencing	Volume	(\$ Thousands	Volume	
				Purchase	volume		volume	
E N20	Cingle Course		line in a intern (Dia sellion (Diat	Financial Consideration		03DJ		+
5-IN3U			Importer/Reseller/Dist					+
1-N55	Sole Source		Milling, Cutting, and	Technical Specification				╞
И-N30М	Neither		Integration of NdFeB	Relationship				┢
Л-N55M			End User of NdFeB	Delivery				_
H-N30H			Other	Other				
H-N55H								
H-N30SH								
H-N55SH								
H-N30UH								
H-N55UH								Γ
H-N30EH								T
H-N55EH								T
H-N30AH								$\uparrow$
н-N55AH								┢
								┢
								+
								┢
								+
								┢
								_
							Bonded NdE	٥R
							Donaca Nar	
							/Specify He	
					2017	2017	(Specify не	ere
				Total:	2017	2017	2018	+
gnet Purchased		10-Digit HTSUS Code						
	Single/Sole Source?	10-Digit HTSUS Code (If Known)	Operation Type	Top Factor Influencing		Value		
	Single/Sole Source?	10-Digit HTSUS Code (If Known)	Operation Type	Top Factor Influencing	Volume	Value (\$ Thousands	Volume	
	Single/Sole Source?	10-Digit HTSUS Code (If Known)	Operation Type	Top Factor Influencing Purchase	Volume	Value (\$ Thousands USD)	Volume	
ИGOe	Single/Sole Source? Single Source	10-Digit HTSUS Code (If Known)	Operation Type	Top Factor Influencing Purchase Financial Consideration	Volume	Value (\$ Thousands USD)	Volume	
MGOe MGOe	Single/Sole Source? Single Source Sole Source	10-Digit HTSUS Code (If Known)	Operation Type Importer/Reseller/Dist Milling, Cutting, and	Top Factor Influencing Purchase Financial Consideration Technical Specification	Volume	Value (\$ Thousands USD)	Volume	
MGOe MGOe MGOe	Single/Sole Source? Single Source Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type Importer/Reseller/Dist Milling, Cutting, and Integration of NdFeB	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship	Volume	Value (\$ Thousands USD)	Volume	
MGOe MGOe MGOe MGOe	Single/Sole Source? Single Source Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type Importer/Reseller/Dist Milling, Cutting, and Integration of NdFeB End User of NdFeB	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery	Volume	Value (\$ Thousands USD)	Volume	
MGOe MGOe MGOe MGOe	Single/Sole Source? Single Source Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type Importer/Reseller/Dist Milling, Cutting, and Integration of NdFeB End User of NdFeB Other	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD)	Volume	
MGOe MGOe MGOe MGOe	Single/Sole Source? Single Source Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type Importer/Reseller/Dist Milling, Cutting, and Integration of NdFeB End User of NdFeB Other	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD)	Volume	
ИGOe MGOe MGOe MGOe	Single/Sole Source? Single Source Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type Importer/Reseller/Dist Milling, Cutting, and Integration of NdFeB End User of NdFeB Other	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD)	Volume	
/IGOe MGOe MGOe MGOe	Single/Sole Source? Single Source Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type Importer/Reseller/Dist Milling, Cutting, and Integration of NdFeB End User of NdFeB Other	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD)	Volume	
MGOe MGOe MGOe MGOe	Single/Sole Source?  Single Source Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type         Importer/Reseller/Dist         Milling, Cutting, and         Integration of NdFeB         End User of NdFeB         Other         Importer/Reseller/Dist	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD) 	Volume	
//GOe MGOe MGOe MGOe	Single/Sole Source?  Single Source Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type         Importer/Reseller/Dist         Milling, Cutting, and         Integration of NdFeB         End User of NdFeB         Other         Importer         Importer	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD) 	Volume	
MGOe MGOe MGOe MGOe	Single/Sole Source? Single Source Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type         Importer/Reseller/Dist         Milling, Cutting, and         Integration of NdFeB         End User of NdFeB         Other         Importer         Importer         Importer/Reseller/Dist	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD) 	Volume	
MGOe MGOe MGOe MGOe	Single/Sole Source?  Single Source Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type         Importer/Reseller/Dist         Milling, Cutting, and         Integration of NdFeB         End User of NdFeB         Other         Importer/Reseller/Dist         Integration of NdFeB         Integration of NdFeB         Importer	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD) 	Volume	
MGOe MGOe MGOe MGOe	Single/Sole Source?  Single Source Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type         Importer/Reseller/Dist         Milling, Cutting, and         Integration of NdFeB         End User of NdFeB         Other         Importer/Reseller/Dist         Integration of NdFeB         Integration of NdFeB         Importer	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD) 	Volume	
//GOe MGOe MGOe MGOe	Single/Sole Source?  Single Source Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type         Importer/Reseller/Dist         Milling, Cutting, and         Integration of NdFeB         End User of NdFeB         Other         Importer/Reseller/Dist         Integration of NdFeB         Integration of NdFeB         Importer	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD) 	Volume	
MGOe MGOe MGOe MGOe	Single/Sole Source?  Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type         Importer/Reseller/Dist         Milling, Cutting, and         Integration of NdFeB         End User of NdFeB         Other         Importer/Reseller/Dist         Integration of NdFeB         Integration of NdFeB         Importer         Importer         Importer/Reseller/Dist         Integration of NdFeB         Importer	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD) 	Volume	
MGOe MGOe MGOe MGOe	Single/Sole Source?  Single Source Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type         Importer/Reseller/Dist         Milling, Cutting, and         Integration of NdFeB         End User of NdFeB         Other         Other         Importer/Reseller/Dist         Other         Importer/Reseller/Dist         Importer/Reseller/Dist         Integration of NdFeB         Other         Importer/Reseller/Dist         Importer/Reseller/Dist	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD) 	Volume	
MGOe MGOe MGOe MGOe	Single/Sole Source?  Single Source Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type         Importer/Reseller/Dist         Milling, Cutting, and         Integration of NdFeB         End User of NdFeB         Other         Other         Importer/Reseller/Dist         Other         Importer/Reseller/Dist         Integration of NdFeB         Other         Importer/Reseller/Dist         Importer/Reseller/Dist	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD) 	Volume	
MGOe MGOe MGOe MGOe	Single/Sole Source?  Single Source Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type         Importer/Reseller/Dist         Milling, Cutting, and         Integration of NdFeB         End User of NdFeB         Other         Other         Importer/Reseller/Dist         Other         Importer/Reseller/Dist         Integration of NdFeB         Other         Importer/Reseller/Dist         Importer/Reseller/Dist         Integration of NdFeB         Importer/Reseller/Dist         Importer/Reseller/Dist	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD) 	Volume	
MGOe MGOe MGOe MGOe	Single/Sole Source?  Single Source Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type         Importer/Reseller/Dist         Milling, Cutting, and         Integration of NdFeB         End User of NdFeB         Other         Other         Importer/Reseller/Dist         Other         Importer/Reseller/Dist         Integration of NdFeB         Other         Importer/Reseller/Dist         Importer/Reseller/Dist         Integration of NdFeB         Importer/Reseller/Dist         Importer/Reseller/Dist	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD) 	Volume	
/IGOe MGOe MGOe MGOe	Single/Sole Source?  Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type         Importer/Reseller/Dist         Milling, Cutting, and         Integration of NdFeB         End User of NdFeB         Other         Other         Importer/Reseller/Dist         Other         Importer/Reseller/Dist         Integration of NdFeB         Other         Importer/Reseller/Dist         Importer/Reseller/Dist         Integration of NdFeB         Importer/Reseller/Dist         Importer/Reseller/Dist	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD) 	Volume	
AGOe MGOe MGOe MGOe	Single/Sole Source?  Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type         Importer/Reseller/Dist         Milling, Cutting, and         Integration of NdFeB         End User of NdFeB         Other         Other         Importer/Reseller/Dist         Other         Importer/Reseller/Dist         Integration of NdFeB         Other         Importer/Reseller/Dist         Importer/Reseller/Dist         Integration of NdFeB         Other         Importer/Reseller/Dist         Importer/Re	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD) 	Volume	
MGOe MGOe MGOe MGOe	Single/Sole Source?  Sole Source Neither	10-Digit HTSUS Code (If Known)	Operation Type         Importer/Reseller/Dist         Milling, Cutting, and         Integration of NdFeB         End User of NdFeB         Other         Other         Importer/Reseller/Dist         Other         Importer/Reseller/Dist         Integration of NdFeB         Other         Importer/Reseller/Dist         Importer/Reseller/Dist         Integration of NdFeB         Other         Importer/Reseller/Dist         Importer/Re	Top Factor Influencing Purchase Financial Consideration Technical Specification Relationship Delivery Other	Volume	Value (\$ Thousands USD)	Volume	

ent Magnet Purchases B Magnet Production e if Other) 2018 2022 2023 
 2019
 2019
 2020
 2020
 2021
 2021
 2022
 202 Value Value Value Value Value Value Volume (\$ Thousands Volume (\$ Thousands Volume (\$ Thousands Volume (\$ Thousands Volume (\$ Thousar (\$ Thousands USD) USD) USD) USD) USD) USD) B Magnet Production e if Other) 2018 
 2019
 2019
 2020
 2020
 2021
 2021
 2022
 2022 2023 2023 Value Value Value Value Value Value Volume (\$ Thousar (\$ Thousands Volume (\$ Thousands Volume (\$ Thousands Volume (\$ Thousands Volume (\$ Thousands USD) USD) USD) USD) USD) USD) 

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

						Next Page
	2024	2024	2025	2025	2026	2026
nds	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)
	2024	2024	2025	2025	2026	2026
nds	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousands USD)

														Total Day
lect "No" if cate	egory is not relev ment	ant to your operations											(Specify F	lere if Other)
						TREO	Content (% of RE	E contained in T	REO)	Total:	2017	2017	2018	2018
Custom	er Name	Country of Sale	End Use (If Known)	10-Digit HTSUS Code (If Known)	Top Factor Influencing Sale	Dysprosium	Neodymium	Praseodymium	Terbium	(Specify Here) (Specify Here) (Specify Here)	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousa USD)
			Sintered NdFeB Permanent Magnets Bonded NdFeB Permanent Magnets		Financial Consideration Technical Specification									-
			Offshore wind turbines		Relationship									
			Electric vehicles Consumer electronics		Delivery Other									
			Non-drivetrain motors in vehicles											
1			Unknown											
0		Comments	:											
lect "No" if cat	egory is not relev	ant to your operations												RE Carl
nit of Measurer	ment									Total:	2017	2017	(Specify F 2018	lere if Other) 2018
Custom	er Name	Country	y of Sale	Type of REE Oxide	Specify Other REE Oxides (If Applicable)	En (If K	d Use nown)	10-Digit HTS (If Knov	US Code wn)	Top Factor Influencing Sale	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousa USD)
				Nd Oxide Dy Oxide		Sintered Ndl Bonded Ndl	-eB Permanent -eB Permanent vind turbines							
				Pr Oxide Other REE Oxides		Electric	c vehicles r electronics							
						Industr Non-drivetr	ial motors rain motors in							
						Unk	known							
		Comments	:											
lect "No" if cate	egory is not relev	ant to your operations											(Specify F	Nare
Custom	er Name	Country	y of Sale	Type of REE Alloy/Metal	Specify Other REE Alloy/Metals	En (If K	d Use nown)	10-Digit HTS (If Knov	US Code wn)	Total:	2017	2017 Value	2018	2018 Value
				Nd Metal Dy Metal		Sintered Ndf Bonded Ndf	FeB Permanent FeB Permanent					USD)	volume	USD)
				NdPr Metal Pr Metal Other REE Metals		Electric	vind turbines c vehicles r electronics							
						Industr Non-drivetr	ial motors rain motors in							
						Unk	known							
J		Comments	:											
lect "No" if cat	egory is not relev	ant to your operations												Sinter
nt of Measurer	ment									Total:	2017	2017	2018	2018
Custom	er Name	Country	y of Sale	Type of Magnet	End Use (If Known) Sintered NdFeB	DFARS 225.7 2533c C	7018, 10 U.S.C. ompliant?	10-Digit HTS (If Knov	US Code wn)	Top Factor Influencing Sale	Volume	Value (\$ Thousands USD)	Volume	Value (\$ Thousa USD)
				N25-N30	Permanent Magnets Bonded NdFeB		Yes							
				N25H-N30H	Permanent Magnets Offshore wind turbines	Unk	known							
				N25SH-N30SH N25UH-N30UH	Electric vehicles									
				N25EH-N30EH	Industrial motors Non-drivetrain motors									
				NZJAH-NJUAH	in vehicles									
)														
		Comments												Bonde
nit of Measurer	ment	ant to your operations									2017	2017	(Specify F 2018	lere if Other)
Custom	er Name	Country	y of Sale	Type of Magnet	End Use (If Known)	DFARS 225.7 2533c C	7018, 10 U.S.C. ompliant?	10-Digit HTS (If Knov	US Code wn)	Total: Top Factor Influencing Sale	Volume	Value (\$ Thousands	Volume	Value (\$ Thousa
				1 MGOe 12 MGOe	Sintered NdFeB Bonded NdFeB		Yes No							
				1H MGOe 12H MGOe	Offshore wind turbines Electric vehicles	Unk	known							
1 1 1					Consumer electronics Industrial motors									
		+								1	+			+

								5. Sal	es															<u>Next Page</u>
22-2026 expected)? If yes, answe	er the following questions belo	w for each of y	your organizatio	on's customers. If no, please p	roceed to the nex	t		5. 54																
7-2026 period (greatest to least). al that was internally consumed	. For 2022-2026, limit your resp (i.e. Only include sales to othe	ponses to signe er entities outs	<b>ed contracts an</b> ide of your orga	nd memorandums of understan anization).	nding (MOUs). Do			DFAR	S 225.7018, 10 U.S	5.C. 2533c, 'The John S	5. McCain Nationa	l Defense Authoriza	tion Act – NDAA 2	019': https://www.f	ederalregister.gov	//documents/2019/(	04/30/2019-08485	5/defense-federal-ac	quisition-regulatic	on-supplement-restr	iction-on-the-acq	uisition-of-certain-n	agnets	
								Total Rare Eart	h Oxides (TREO)															
							(Specify He	ere if Other)	_			Τ			Γ	-			T	-	1		T	
	TREO Content (% of R	EE contained i	n TREO)	Total:	2017	2017	2018	2018	2019	2019	2020	2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026
ode (If Top Factor Influencing		ε		Other																				
Sale	osium /miun	dymiu	Dium	ý Here	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands
	Dyspr	aseoc	Terk	Specif	volume	USD)	volume	USD)	Volume	USD)	volume	USD)	volume	USD)	volume	USD)	volume	USD)	Volume	USD)	volume	USD)	volume	USD)
Financial Consideration		ā																						
Delivery																								
Other																								
								RE Carbonat	es and Oxides															
							(Specify H4	ere if Other)	-															
Specify Other REE				Total:	2017	2017	2018	2018	2019	2019	2020	2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026
xide Oxides	End Use (If Known)	10-Digit H (If K	HTSUS Code (nown)	Top Factor Influencing Sala	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volumo	Value (\$ Thousands	Volume	Value (\$ Thousands	Volume	Value (\$ Thousands	Volumo	Value (\$ Thousands	Volumo	Value (\$ Thousands	Volumo	Value (\$ Thousands	Volumo	Value (\$ Thousands	Volumo	Value
(ii Applicable)					Volume	USD)	volume	USD)	volume	USD)	volume	USD)	volume	USD)	volume	USD)	volume	USD)	volume	USD)	volume	USD)	volume	USD)
	Bonded NdFeB Permanent																							
2	Electric vehicles																							
des	Consumer electronics Industrial motors																							
	Non-drivetrain motors in Unknown																							
				Total:	2017	2017	2018	2018	2019	2019	2020	2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026
Alloy/Metals	End Use (If Known)	10-Digit H (If K	HTSUS Code (nown)			Value		Value		Value		Value		Value		Value		Value		Value		Value		Value
(If Applicable)	()	(		Top Factor Influencing Sale	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)
	Sintered NdFeB Permanent Bonded NdFeB Permanent																							
l	Offshore wind turbines Electric vehicles																							
tals	Consumer electronics Industrial motors																							
	Non-drivetrain motors in Unknown																							
								•																
								Sintered Nd	IFeB Magnets															
				Total	2017	2017	(Specify He 2018	ere if Other) 2018	2019	2019	2020	2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026
End Use	DFARS 225.7018, 10 U.S.C.	10-Digit H	HTSUS Code			Value		Value		Value		Value		Value		Value		Value		Value		Value		Value
	2000 compilant:			Top Factor Influencing Sale	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)	Volume	(\$ Thousands USD)
Sintered NdFeB Permanent Magnets	Yes																							
A Bonded NdFeB Permanent Magnets	Νο																							
l Offshore wind turbines	Unknown																							
HElectric vehiclesJHConsumer electronics																								
H Industrial motors																								
in vehicles																								
		l				ı		·	·						·		· · · · · · · · · · · · · · · · · · ·		I		· · · · · · · · · · · · · · · · · · ·			1
								Bonded Nd	FeB Magnets															
				<b>_</b>	2017	2017	(Specify He	ere if Other) 2018	2019	2019	2020	2020	2021	2021	2022	2022	2023	2023	2024	2024	2025	2025	2026	2026
End Use	DFARS 225.7018, 10 U.S.C.	10-Digit H	HTSUS Code	Total:		Value		Value		Value		Value		Value		Value		Value		Value		Value		Value
(If Known)	2533c Compliant?	(If K	nown)	Top Factor Influencing Sale	Volume	(\$ Thousands	Volume	(\$ Thousands	Volume	(\$ Thousands	Volume	(\$ Thousands	Volume	(\$ Thousands	Volume	(\$ Thousands	Volume	(\$ Thousands	Volume	(\$ Thousands	Volume	(\$ Thousands	Volume	(\$ Thousands
Sintered NdFeB	Yes													0.00										
Offshore wind turbines	Unknown																							
Consumer electronics																								
Non-drivetrain motors																								
																			I					1

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

Reco	ord the total number of full time equivalent (FTE) empl	oyees and contract	ors for the <b>2017 to 2021</b>	6. Em (and expected for 2022-202	ployment 6) period for vour c	organization em
		-,		Past	,,	0
Α.		2017	2018	2019	2020	2021
	FTE Employees & Contractors					
Reco	ord the number of workers by occupation employed at	the locations listed	in sections 2a and 2b fo	r <b>2022 only</b> . Estimates are ad	cceptable.	
	Occupation		Number	of Employees		
	Engineers, Scientists, R&D					
	Production Line Operations					
_	Testing and Quality Control					
В.	Information Technology/Computing					
	Sales, Administrative, and Management					
	Other	(Specify Here)				
		Total:		0		
	Issue		Timeframe	Primary Occupation Affected		
	Attracting Workers to Location		Ongoing, Expected to Continue	Engineers, Scientists, R&D		
	Employee Turnover		Past Only (Resolved)	Production Line Operations		
C.	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:					
			I BUSINE	SS CONFIDENTIAL - Dor Socti	on 70E(d) of the De	fance Draduct

					<u>Next Page</u>
employ	ed at the locations l	isted in sections 2a	and 2b. Estimates	are acceptable.	
	Current		Expe	ected	
1	2022	2023	2024	2025	2026
		Explain			
		•			
uction A	.ct				

ord your organization conducte	d NdFeB Permanent Magnet product re Ex dollar expenditures and type of CapE>	ated capital expenditures (	2026 estimates)	period.					
		2017 2018	<b>Record \$</b> 2019	in Thousands, e.g. Past 2020	\$12,000.00 = survey input of \$ 2021	12	Current 2022	2023	Future 2024 2025
<ol> <li>Total CapEx</li> <li>Machinery, Equipment,</li> <li>IT, Computers, Software</li> </ol>	and Vehicles	\$0 \$0	\$0	\$0	\$0 		\$0	\$0 	\$0 \$0 
Land, Buildings, and Lea Other	sehold Improvements (Specify Here) (Specify Here)								
5 Other vide your organization's Cap	(Specify Here) Ex funding sources for <b>2021 only</b> . Estim	ates are acceptable. U.S. ar	nd Non-U.S. Indu 2026)	stry refers to joint	ventures or other partnerships v	vith your organizatior	n (does not include bond	ds, IPOs, or other funding s	sources). In addition, pleas
Source of Fuernal/Self-Funded	nding		2020].						
E-Related (Including CMI & A D-Related	MES)								
er USG-Related te/Local Government . Industry		CapEx Project(s) Explain:							
n-U.S. Industry n-U.S. Government									
mer (Specify Here	Total: 0%	in CapEy related to NdEoP	Dormonont Mag	not related produc	*~)				
es, identify the reasons for th	nese change(s):								
2022-2026, does your organ	nization anticipate any major change(s) t	o CapEx related to NdFeB F	Permanent Magr	net related products	s?				
order to produce NdFeB Perm	nanent Magnets and or related products	, are there significant CapE	x costs associate	ed with production?	? If yes, please answer the follov	ving below. If no, plea	se proceed to the next	section. (Note, only provid	le CapEx for
step(s) of the process chain	that your organization participates in).			Mining o	of RF Minerals				
Equipment	Equipment Producer Name	Equipment Producer	Single/Sole	Average lead time to acquire	Reason For Disruption	Primary Resolution	Criticality	Average cost to acquire	Comments
-1-1-1		Country	Source	(in days)	(If Applicable)	(If Applicable)	A Little to pe impact	(\$ Thousands USD)	
			Single Source		Cyber Security Incident	Designed Input	on production		
			Sole Source		Disease/Quarantine	Developed Captive Capability	3 - Partial impact on production		
						Identified	2 - Significant impact on production		
			Neither		Equipment Outage	Another Supplier	1 - Critical to production (cannot		
					Financial Constraint	Stockpiling	produce without)		
					Labor Disruption	Substituted Input Waited Until Disruption			
					Restrictions Other	Passed Other			
					None	None			
		Equipment Producer	Recycling/Recla	mation of Rare Ear Average lead	rth Elements (REE) from Waste	Material Primary		Average cost to acquire	
Equipment	Equipment Producer Name	Country	Source	time to acquire (in days)	(If Applicable)	Resolution (If Applicable)	Criticality	(\$ Thousands USD)	Comments
		Equipment Producer	Separa Single/Sole	tion and Processin Average lead	g of RE Carbonates and Oxides Reason For Disruption	Primary	III	Average cost to acquire	
Equipment	Equipment Producer Name	Country	Source	(in days)	(If Applicable)	(If Applicable)	Criticality	(\$ Thousands USD)	Comments
Equipment	Equipment Producer Name	Equipment Producer	Single/Sole	Average lead time to acquire	Reason For Disruption	Primary Resolution	Criticality	Average cost to acquire	Comments
		Country	Source	(in days)	(If Applicable)	(If Applicable)		(\$ Thousands USD)	
				Sintered NdFeB	3 Magnet Production				
Equipment	Equipment Producer Name	Equipment Producer Country	Single/Sole Source	Average lead time to acquire	Reason For Disruption (If Applicable)	Primary Resolution	Criticality	Average cost to acquire (\$ Thousands USD)	Comments
				(in days)		(Il Applicable)			
				Bonded NdFeB	Magnet Production	Drimon			
Equipment	Equipment Producer Name	Equipment Producer Country	Single/Sole Source	time to acquire (in days)	Reason For Disruption (If Applicable)	Resolution (If Applicable)	Criticality	Average cost to acquire (\$ Thousands USD)	Comments
		Equipment Producer	Recycling/Re	eclamation of NdFe	eB Permanent Magnets from W Reason For Disruption	Primary		Average cost to acquire	
Equipment	Equipment Producer Name	Country	Source	time to acquire (in days)	(If Applicable)	Resolution (If Applicable)	Criticality	(\$ Thousands USD)	Comments
				1					

Prev	vious Pa	ge													Next Page				
					8. Res	search & De	evelopment,	/Intellectu	al Property										
Α.	Has you expects	ur organization conduc s to for 2022-2026)?	ted NdFeB Pe	ermanent	Magnet product r	related rese	earch and de	velopment	(R&D) from	n 2017-202	1 (and or		If no, proc	eed to part	D below.				
	Record	your organization's R8	&D dollar exp	enditures	and type of R&D	expenditur	e for the 201	17-2021 (20	22-2026 es	timates) pe	eriod.								
					Kecoru ş		iius, e.g. 312	Past	urvey inpu	1 01 312	Current		Fi	uture					
в		-				2017	2018	2019	2020	2021	2022	2023	2024	2025	2026				
D.	1	Total R&D Expenditure	es			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0				
	2	Applied Research																	
	4	Product/Process Deve	lopment																
	From 2	017-2021, did your org	ganization exp	perience a	ny major change(	s) in R&D e	expenditures	related to	NdFeB Pern	nanent Ma	gnet related	l products	?						
	lf Yes, i	identify the reasons for	r these chang	ge(s):															
	For 202	22-2026, does your org	anization ant	ticipate any	y major change(s)	) to R&D ex	penditures r	elated to N	ldFeB Perm	anent Mag	net related	products?							
	lf Yes, i	identify the reasons for	r these chang	ge(s):															
From 2017-2021, did your organization experience any major change(s) in R&D expenditures related to NdFeB Permanent Magnet related products?         If Yes, identify the reasons for these change(s):         For 2022-2026, does your organization anticipate any major change(s) to R&D expenditures related to NdFeB Permanent Magnet related products?         If Yes, identify the reasons for these change(s):         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 wit organization (does not include bonds, IPOs, or other funding sources). In addition, please provide any relevant R&D projects that your organization is currently conduct organization (does not include bonds, IPOs, or other funding sources). In addition, please provide any relevant R&D projects that your organization is currently conduct organization (does not include bonds, IPOs, or other funding sources). In addition, please provide any relevant R&D projects that your organization is currently conduct organization (does not include bonds, IPOs, or other funding sources). In addition, please provide any relevant R&D projects that your organization is currently conduct organization (Section of Funding DOE-Related (Including CMI & AMES) DOD-Related DOE-Related (Including CMI & AMES) DOD-Related Other USG-Related (Including CMI & AMES) DOD-Related Otherelesg (Secting Ames) Project (Secting Ames) P													ips with you conducting	ur (or plans to					
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 you 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 conduct by 2026).         Source of Funding         Internal/Self-Funded         DOE-Related (Including CMI & AMES)         DOD-Related         Other USG-Related         State/Local Government         U.S. Industry         Non-U.S. Industry																			
Provide your organization's R&D funding sources for <b>2021 only</b> . Estimates are acceptable. U.S. and Non-U.S. Industry refers to joint ventures or other partnerships wi organization (does not include bonds, IPOs, or other funding sources). In addition, please provide any relevant R&D projects that your organization is currently conduc conduct by 2026).      Source of Funding     Internal/Self-Funded     DOE-Related     Other USG-Related     Other USG-Related     State/Local Government     U.S. Industry     Non-U.S. Industry     Non-U.S. Industry     Non-U.S. Industry     Total:     O%     Did your organization own or use NdFeB Permanent Magnet related intellectual property (IP) from 2017-2021 (and or expects to for																			
	State/L	ocal Government			na na	2 Hoject(S													
Non-U.S. Industry																			
Non-U.S. Government																			
	Other	(Specify Her	e)																
			Total:	0%															
D.	2022-2 acquisi produc	026)? For original investion own of tion refers to when acc tion of NdFeB Perman	ntors, date of cess to the IP nent Magnets	f acquisitic was appro	on refers to when oved. Note, only p d products.	the IP was	licensed from which is criti	m a regulat i <b>cal (can no</b>	ory agency.	. For license without) to	ees, date of the		lf no, proc	eed to the r	next section.				
	Record	the following: The ser	ial number of	f the IP you	ur organization ut	ilizes, the c	organization	which own	s the IP, and	d the date of	of acquisitio	n (can incl	lude anticipa	ipated acquisition date					
		IP Number	Name of I	P Owner	Country of IP	owner	Date of A	cquisition	Cost of Acc	quisition (\$ nds USD)			ts						
									mousur										
			1																
E.																			
			1																
	Has you	ur organization encoun	 ntered difficul	lties in obt	aining NdFeB Per	manent Ma	agnet related	d IP? If yes.	please expl	lain below.									
								,,				<u>I</u>							
															-				
		Comments:																	

Prev	vious Page				Next Page				
				9. National Defense/Critical Infrastructure					
Δ	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.								
Λ.	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 infrastruct	ure sectors your organiza	ation directly or indirectly sup	plies NdFeB Permanent Magnets and or related products for. Please do the same for 2022-2026.					
	Definitions of each sector may be found at: https://w	www.cisa.gov/critical-inf	rastructure-sectors						
	Critical Infractructure Sector	(2017 2021)	(2022 2026)						
	Chemical Sector	(2017-2021)	(2022-2020)						
	Commercial Facilities Sector								
	Communications Sector								
	Critical Manufacturing Sector								
	Dams Sector								
	Defense Industrial Base Sector								
В.	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								
	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.								
C.									
	How have current market conditions involving the su	ubject product categorie	s affected your ability to meet	current U.S. Defense requirements? Please explain below. If no, proceed to part E.					
		, , , , , , , , , , , , , , , , , , , ,							
D.									
	How is your organization ensuring that its sales are c	ompliant with DFARS 22	5.7018, 10 0.S.C. 2533C, The J	John S. Miccain 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.fede	eralregister gov/docume	onts/2019/04/30/2019-08485/	defense-federal-acquisition-regulation-supplement-restriction-on-the-acquisition-of-certain-magnets					
с.									
		_							
	Comments:								
L	BUSINESS CONFIDENTIAL - Per Section 705(d) of the Defense Production Act								

ovious Paga						
<u>avious Page</u>		10 Comp	atition/Challenges			<u>Next Pag</u>
Does your organization struggle to compete against part B.	t imports and or exporting abroad? Do you	expect the same/similar conditions to persist in th	ne future? If yes, proceed to the next	question. If no, please proceed to		
Are any of the input conditions below hindering yo	ur organization's ability to compete on pric	? If yes, answer the following questions below. If no, please proceed to part B.				
Input Condition (Estimates Acceptable)		Would changing current government regulations/incentives significantly improve your organization's ability to compete on price?	Would changing current government       If Yes, specify the         gulations/incentives significantly improve       If Yes, specify the         our organization's ability to compete on       regulation/incentive below         price?       If Yes, specify the		Explain	
Electricity		Yes				
Environmental Regulations		No				
Export Licensing/Regulations		Not Applicable				
labor		Νοι Αρρικαδία				
Sourcing Feedstock Material						
Taxes						
Transportation Costs						
VAT Taxes Tariffs and other Trade Duties						
Other (Specify Here)						
Total:	0%	I				
What single change (and to which portion of the No would most significantly improve cost competitiver	dFeB Permanent Magnet supply chain) ness by 2026? Please explain to the right.					
Comments:						
Does your organization currently participate in any participate in the future/continue participation? If	cooperative production, sourcing, informat yes, answer the following questions below.	tion sharing, and or other agreements with other f If no, please proceed to Part C.	firms/governments outside of the Uni	ted States? Do you intend to		
CountryAnticipated/Past Start Date (If Applicable)Anticipated/Past End Date (If Applicable)		Anticipated/Past End Date (If Applicable)			Explain	·
		ļ				
Comments:						
Is your organization looking to expand its operatior responses to only activities that your organization	ns domestically (or internationally) betweer performs (i.e. do not provide responses o	a 2022-2026? If yes, answer the following question <b>n the market as a whole or in general)</b> .	is below. If no, please proceed to par	t D. Note, limit market share		
		Anticipated charges in workst share 2022	Drimony challenge to increase	ng market share		
Country (Estimates acceptable) Anticipated c		2026	(If Applicable)			cplain
		Increase	Domestic Compe	tition		
		Decrease	Environmental regulation	s/remediation		
		No Change	Export controls/ITA	R & EAR		
		Unknown	Financing/credit ava	ailability		
			Foreign Compet	ition		
Input availabilit			ity			
			Labor availability/costs			
[	İ	1	Quality of inpu	its		

					Quality				
				Taxes		xes			
					Trade disp	utes/tariffs			
		Comments:							
	Identify	y the primary challenges/issues affecting you	r competitive position in the overall [U.S. ar	nd non-U.S.] subject product markets. Rank the	leading 5 most significant challer	nges (1 being the most important issue/im	pact; 2 being the next most impor	tant issue/impact, etc.)	. Explain your response.
				Challen as Francis	an an dD		-		
		Challenge/Issue		Challenge Experie	enced?	Rank Top 5	E	xpiain	
	1	1 Aging equipment, facilities, or infrastructure		Yes		1			
	2	Aging workforce		No		2			
	2	Counterfeit parts				2			
	5	A Cyber security				3			
	4	4 Cyber security				4			
	5	5 Domestic competition				5			
	6 Environmental regulations/remediation								
	7 Export controls/ITAR & EAR								
	8	8 Financing/credit availability							
	<u> </u>	0 Ecroign competition							
	10	Government acquisition process							
	11	Government purchasing volatility							
	12	Government regulatory burden							
	13	Healthcare							
D.	14	Industrial espionage - domestic							
	15	Industrial espionage - foreign							
	16	Innut availability							
	17	Intellectual property/patent infringement							
	17	Intellectual property/patent infiligement	ellectual property/patent infringement						
	18	8 Labor availability/costs							
	19	Natural disasters (including disease/quarant	tine)						
	20	20 Obsolescence							
	21	Pension costs							
	22	Proximity to customers							
	23	Proximity to suppliers	imity to suppliers						
	24	Qualifications/certifications							
	25	Quality of inputs							
	26	R&D costs							
	27	Reduction in USG demand							
	28	28 Taxes							
	20	20 Trade disputes /tariffs							
	29	Worker/skills retention							
	30		(an a cife)						
	31	Other	(specify)						
	32	Other	(specify)						
	Identify	lentify 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	Actions	Taken	Short Term/	Rank
		inipacts Experienceu		100,110	Тор 3			Long Term	Тор 3
	Increased cost of materials		Vec	1	Beduce workforce		Short Term	1	
	Inahili+	nability to access work location		No	2	Increase online/remote work canabilities			
	Inabili+	ability to fulfill contracts			2	Seek government assistance		2	
	Poduce	educed sales			3	Delay or reject new contracts		3	
	Reduce	equiced sales			l	Delay of reject new contracts	Delay or reject new contracts		
	Foreigr	oreign supplier manufacturing delays				Begin to produce pandemic-related products			
	Domes	oomestic supplier manufacturing delays				Increase use of domestic suppliers			
Ε.	Increas	ncreased demand				Reduce use of suppliers located in China			
	Transp	ansportation-based disruptions				Reduce use of suppliers located outside the U.S. and China			
	Financi	inancing difficulties				Increase inventories			
	Labor s	abor shortages				Increase supplier redundancy			
		Other	(specify)			Other	(specify)		
		Other	(specify)			Other	(specify)		
F			· · · · · ·	•	•			· ·	
	Idontify	y any USG actions that could have better							

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

Previous Page								
	11. Certification							
The undersigned certifies that the information h	nerein supplied in response to this questionnaire is co	mplete 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 surv	ey, 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 o	clarifications.							
Organization Name	0							
Organization's Internet Address								
Name of Authorizing Official								
Fitle of Authorizing Official								
E-mail Address	E-mail Address							
Phone Number and Extension	Phone Number and Extension							
Date Certified								
In the box below, provide any additional comme	ents or any other information you wish to include rega	arding this survey assessment.						
How many hours did it take to complete this survey?								
BUSINESS CONFIDENTIAL - Per Section 705(d) of the Defense Production Act								