

# **DEPARTMENT OF TRADE AND INDUSTRY**

**SAFEGUARD MEASURES CASE NAME:**

## **APPLICATION OF PETROCHEMICALS INDUSTRY**

### **PUBLIC VERSION**

**SGM CASE NO. : SG05-2020**

**DATE : 28 August 2020**

**REPORT ON THE INITIATION OF A PRELIMINARY  
INVESTIGATION ON THE APPLICATION FOR  
SAFEGUARD MEASURES ON THE IMPORTATION OF  
HIGH-DENSITY POLYETHYLENE (HDPE) FROM  
VARIOUS COUNTRIES**

## **REPORT ON THE INITIATION OF A PRELIMINARY INVESTIGATION ON THE APPLICATION FOR SAFEGUARD MEASURES ON THE IMPORTATION OF HIGH-DENSITY POLYETHYLENE (HDPE) FROM VARIOUS COUNTRIES**

### **I. INTRODUCTION**

This is an evaluation report on the evidence submitted by the petrochemical industry represented by JG Summit Petrochemical Corporation (JGSPC). The industry filed an application for the imposition of safeguard measures on the importation of High-Density Polyethylene (HDPE) pellets and granules from various countries.

JGSPC alleged that serious injury to the domestic industry was caused by the increased import volume of HDPE which is classified under ASEAN Harmonized Tariff Nomenclature (AHTN) Code 3901.20.00

#### **A. The Philippine Industry's Petition**

##### **A.1 Parties to the Petition - Domestic Industry/Petitioner**

Section 4 (f) of RA 8800 defines "domestic industry" as referring to the *"domestic producers, as a whole, of like or directly competitive products manufactured or produced in the Philippines or those whose collective output of like or directly competitive products constitutes a major proportion of the total production of those products"*.

Rule 4.1 of the Implementing Rules and Regulations (IRRs) of RA 8800 further provides that: *"(1) in the case of a domestic producer which also imports the product under consideration, only its domestic production of the like or directly competitive product shall be treated as part of the domestic production, or (2) in the case of a domestic producer which produces more than one product, only that portion of its production of the like or directly competitive product may be treated as part of such domestic industry"*.

JGSPC was incorporated in 1994 as a joint venture between JG Summit Holdings, Inc. and Marubeni Corporation. Today, JGSPC is the largest manufacturer of polyolefins in the Philippines. It is the first and only integrated PE and PP resin manufacturer in the country. They produce HDPE, LLDPE, PP-H, and PP-R resins marketed under the EVALENE® brand using the world-renowned UNIPOL™ technology.<sup>1</sup>

JGSPC's in-house fabrication capabilities allow it to understand the customers' technical, operational, and performance requirements. The Product R&D laboratory has the following equipment that enables it to conduct lab-scale fabrication and analysis: blown film line, tubular water quench/IPP film line, cast film line, injection molding, blow molding, compression molding, compounding using a single screw or twin-screw extruder.<sup>2</sup>

---

<sup>1</sup> <https://jgspetrochem.com/jg-summit-petrochemical-corporation/company-overview/>  
<sup>2</sup> <https://jgspetrochem.com/choose-us/>

According to JGSPC, for their local and indirect export sales, they primarily sell its HDPE resins directly to over 200 local plastic products manufacturers and secondarily through distributors. While for export sales, JGSPC mainly sells through accredited distributors and trading partners. Since 1998, JGSPC has sold its products to over thirty (30) countries worldwide.

Pursuant to Rule 4.1 cited above, JGSPC meets the legal requirement to be considered a domestic industry since JGSPC accounts for a 100% share of the total domestic production of HDPE.

## **A.2. Importers and Exporters of HDPE**

Annexes A and B are the lists of importers and exporters of HDPE products during the period of the investigation.

## **A.3. Industry Overview**

Petrochemicals is a strategic sector of the economy that could anchor the country's industrial development. Because of its strong linkages upstream, midstream and downstream, the sector provides robust multiplier effects on other main sectors of the economy such as construction, electronics and computer, medical services, transportation and automotive, packaging, education, telecommunications, electrical and water distribution, agriculture and fishery, and furniture, among others<sup>3</sup>.

The industry's objective is to achieve self-sufficiency in strategic resin supply and increase the petrochemical sector's contribution to total Philippine GDP from Php 44 B in 2010 to Php 113 B in 2018 and Php 215 B by 2025 through the progressive integration of upstream, midstream and downstream components of the sector. Such progressive integration will involve the entry into various other petrochemical branches that will provide exponential value addition in different industries, spurring domestic and export growth and potentially contributing up to 5-10% of GDP by 2025.

## **B. Role of the DTI under RA 8800 (The Safeguard Measures Act)**

### **B.1 Examination of Evidence to Justify Initiation of Investigation**

In establishing whether there is sufficient evidence to justify the initiation of the investigation, the Secretary relied on Section 6 paragraph 3 of RA 8800 and its IRRs. The said provision provides, *"the Secretary shall review the accuracy and adequacy of the evidence adduced in the petition to determine the existence of a prima facie case that will justify the initiation of a preliminary investigation within five (5) days from receipt of the petition."*

---

<sup>3</sup> <http://industry.gov.ph/industry/petrochemicals/>

## **B.2 Documents Received/Gathered by DTI**

On 09 March 2020, DTI received an application from JGSPC for the initiation of a safeguard measures investigation on the importation of HDPE from various countries.

DTI evaluated the initial documents and informed JGSPC to submit additional data. On 27 May 2020, additional data were submitted by the industry, i.e. product description, raw materials used, export information, among others

## **II. THE PROCESS OF INITIATION OF INVESTIGATION**

### **A. Acceptance of the Petition**

In accepting the petition, the Secretary relied on the following provisions of the IRRs of RA 8800:

Rule 6.3 b provides, *"the Secretary shall preliminary screen the application if the following conditions are met:*

- i. The application is signed;*
- ii. All relevant questions are answered or the reasons for the absence of information are given; and*
- iii. The attachments to the application are complete".*

Rule 6.3 c provides, *"failure to supply all the information sought in the application will lead to the non-acceptance thereof. The Secretary shall check the consistency of the information provided in the application against other information available to him. The Secretary shall clarify any unclear or ambiguous statement with the applicant".*

Rule 6.3 d provides, *"as soon as the requirements are completed, the Secretary shall acknowledge in writing that he has already accepted a properly documented application. The date of the Secretary's letter shall be considered as day zero (0) of the five (5) calendar days within which he is required to determine whether there is sufficient evidence to justify the initiation of an investigation. The Secretary shall issue the letter as soon as practicable from his receipt of a properly documented application. If the applicant decides to give the Secretary further information in support of an application, the five (5) day period herein mentioned shall commence from the date of the submission of the new information. After this period, the Secretary shall no longer entertain any information that may be provided by the applicant".*

On 24 August 2020, the Secretary officially informed JG Summit Petrochemical Corporation (JGSPC) that their petition has been accepted as a properly documented application.



## IV. THE EVIDENCE PRESENTED BY THE INDUSTRY

### A. The Product Subject to the Petition

Section 4 (h) of RA 8800 defines like product as *"a domestic product which is identical, i.e. alike in all respects to the imported product under consideration, or in the absence of such a product, another domestic product which, although not alike in all respects, has characteristics closely resembling those of the imported product under consideration"*.

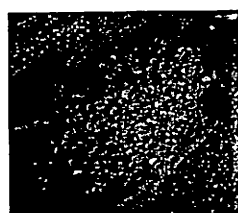
Section 4 (e) of RA 8800 further provides, *"directly competitive product shall mean domestically produced substitutable products"*.

A comparison of the imported HDPE with the locally produced HDPE is required to determine if these are like or directly competitive products.

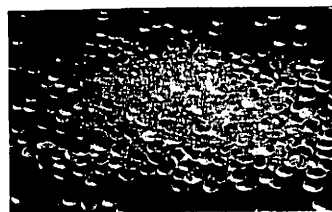
#### A.1 Domestic Product

High-Density Polyethylene (HDPE) is a type of polyethylene resin with densities from 941kg/cubic meter or greater and also having a specific gravity of 0.94 or more. Primarily sold as translucent white pellets or in granular form.

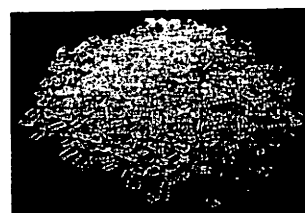
HDPE is made by polymerizing ethylene monomer using organometallic catalysts. It is also called a polyolefin since its main monomer ethylene is an olefin, and it also may be copolymerized with other linear alpha olefin copolymers such as 1-butane or 1-hexene.



Actual Size



Pellets



Granules

#### A.2. Product Specification

Physical Characteristics	Evalene® Grade Name	Melt Index (190°C/2.6kg, g/10 min)	Density (g/cm³)	Characteristics
Translucent white pellets in sold form	HF09522	0.75/9	0.952	Good puncture resistance, high stiffness, and tensile strength, high molecular weight.
	HF14522	0.12/14	0.952	Good puncture resistance, High stiffness, Medium molecular weight
	HJ04551	4	0.955	Outstanding low-temperature impact strength, UV-stabilized

	HJ04601	4	0.96	Excellent impact strength, High stiffness, UV-stabilized
	HJ04602	4	0.96	Organoleptic-certified
	HJ08601	8	0.96	Good impact strength, UV-stabilized, Organoleptic-certified
	HJ20571	20	0.957	Excellent processability
	HB09521	0.075/9	0.952	Outstanding Environmental Stress Crack Resistance (ESCR >700 hrs). High stiffness, High molecular weight
	HB23551	0.27/23	0.955	Good ESCR, High stiffness
	HB33531	0.39/33	0.953	Good processability
	HP10441	0.08/10	0.944	High Oxidation-Induction Time (OIT), PE 80-certified
	HP10441	0.08/10	0.944	High Oxidation-Induction Time (OIT), PE 80-certified
	HP10491	0.02/6	0.949	PE100-certified, Excellent sag resistance, Excellent slow crack and rapid crack growth resistance, High Oxidation-Induction Time (OIT)
	HM10561	1	0.956	Excellent tenacity, High stretchability

Source: Domestic Industry

### A.3. Uses and Applications

HDPE grades exhibit a superior balance of stiffness, impact strength and chemical resistance, making them ideal for a broad range of applications such as:

Evaluated Grade Name	Typical Application
HF09522	Grocery bags, Supermarket produce bags, carrier bags, trash bags, sack liners
HF14522	Produce bags on a roll, supermarket produce bags, wet market bags, sando bags, laundry bags, carrier bags, trash bags, sack liners, flexible packaging
HJ04551	Pallets and crates for cold storage applications
HJ04601	Pallets, Dunnage trays, crates, Industrial parts
HJ04602	Beverage caps for mineral water, juice and tea drinks
HJ08601	Crates and cases, caps for still and mineral water
HJ20571	Housewares, caps, pails, toys
HB09521	Medium size extrusion blow molded containers (10-50 liters) for household and industrial chemicals (HIC) condiments and cooking oil.

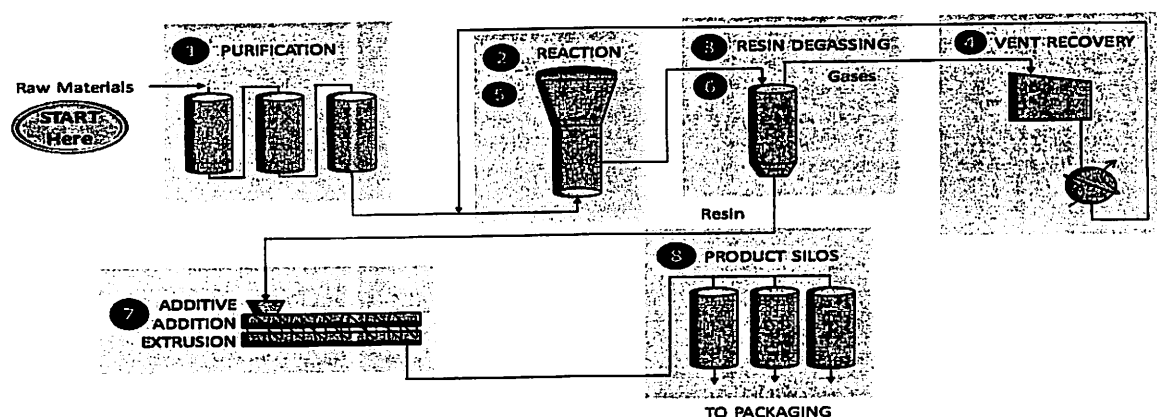
HB23551	Rigid packaging, food beverage and condiment packaging, Bottles for personal care product, Bottles for household and industrial chemicals (HIC)
HB33531	Rigid packaging, food, beverage and condiment packaging, bottles for personal care products, Bottles for household and industrial chemicals (HIC)
HP10441	Pressure pipe applications (PE 80), pipes for building & construction, smooth wall and corrugated pipes for electrical conduits, telecommunications, irrigation and sewage
HP10491	Pressure pipe application (PE100), small large diameter pipes for water, sewage, irrigation, industrial and mining
HM10561	Commercial and industrial ropes and nets (fishing net, agricultural net, mosquito nets), non-woven filament applications

#### A.4. Manufacturing Process

UNIPOL™ PE Gas Technology – Existing 320 kilotons per annum( kTA) plant is one of the world's most widely used PE technology, having more than 165 licensed reactor lines in 28 countries, with a total capacity of more than 48 Million MTA.

According to JGPSCC, HDPE resins product are produced using the two world's most widely used PE Process technologies and as such are similar and substitutable with other imported HDPE resin products, especially those used for the same end-use applications

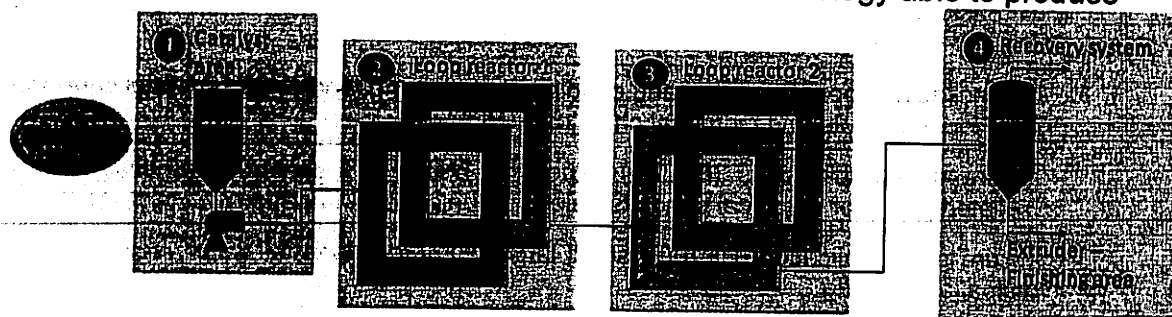
##### a) Univation UNIPOL™ PE Process Technology



Source: Domestic Industry

JGSPC will start to operate its third PE line using US-based Chevron Phillips MarTECH ADL™ PE production technology. The line, which has a rated production capacity of 250kTA, will be able to produce bimodal, metallocene, and bimodal metallocene HDPE resins, for which there is no local production. The new PE line will have an initially planned grade slate of 8 new grades for HDPE, thereby bringing the total number of HDPE grades to 21 by end-2020.

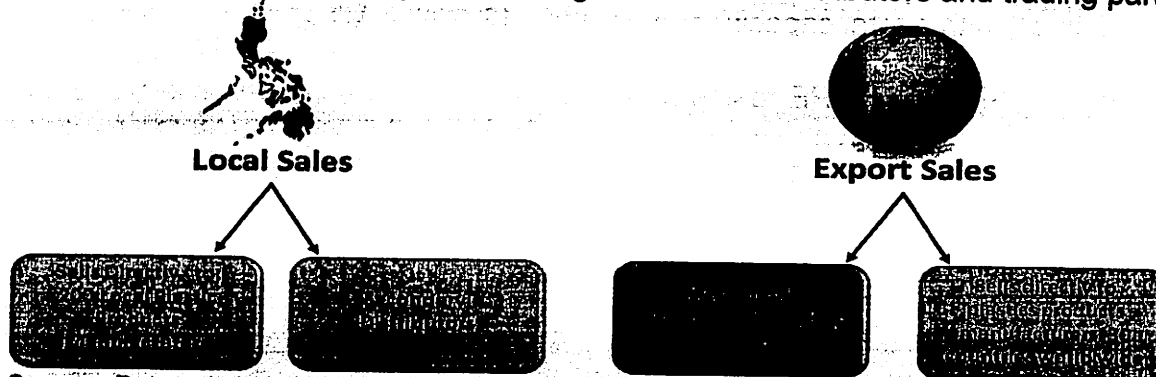
## b) Chevron Phillips MarTech™ ADL PE Process: Technology able to produce



Source: Domestic Industry

## A.5. Distribution Channel

For local and indirect export sales, JGSPC primarily sells its HDPE resins directly to over 200 local plastic products manufacturers and secondarily through distributors. While for export sales, JGSPC mainly sells through accredited distributors and trading partners.



Source: Domestic Industry

## B. Imported Product

## B.1 Physical Dimensions of Imported Products

Resin Type	Grade Name	Melt Index (g/10 min)	Density (g/cm³)
	EL-LENE™ H5604F	0.04/10	0.956
	MARLEX® TRB-115	0.06/10	0.950
	DOW™ HDPE KT 10000 UE	8.0/10 or 22/10	0.964
	HD2408J	7.5/10	0.964
	EL-LENE™ H568JA	0.8/10	0.956
	TITANZEX HB6200	0.45/10	0.956

Resin Type	Grade Name	Melt Index (g/10 min)	Density (g/cm³)
	TITANVENE™ HD5502GA	0.38/10	0.953
	HD8100M	0.25/10	0.952
	MARLEX® TRB-490	8.0/10	0.950
	TITANZEX HM5000	0.8/10	0.951
	8010	1.0/10	0.958
	8012	1.1/10	0.957
	SEETEC SP380	0.6/10	0.955

Source: Domestic Industry

**B.2. Product Description under the Tariff and Customs Code 3901 (HDPE)**

AHTN	Description	MFN	ACFTA		AANZFTA		AJCEPA						AKFTA	ATIGA
			2015 - 2017	2018	2015 - 2019	2020	2015	2016	2017	2018	2019	2020	2006	
3901	Polymers of ethylene, in primary forms.													
3901.20.00	- Polyethylene having a specific gravity of 0.94 or more	10	10	5	15	12	13.39	13.12	1.86	12.59	12.32	12.05	12	0

Source: Classification based on The Philippine Tariff Finder (PTF) of the Tariff Commission. Retrieved from <http://tariffcommission.gov.ph/finder>

AHTN ASEAN Harmonized Tariff Nomenclature

MFN Most Favoured Nation

AANZFTA ASEAN-Australia/New Zealand Free Trade Agreement

ACFTA ASEAN-China Free Trade Agreement

AJCEPA ASEAN-Japan Comprehensive Economic Partnership Agreement

AKFTA ASEAN-Korea Free Trade Agreement

PJEPA Philippines-Japan Economic Partnership Agreement

**C. Comparison between Imported and Domestic Product**

Locally produced and imported HDPE products are like products on the following because of the subsequent characteristics:

- i. Same end-use applications
- ii. Same Tariff Classifications
- iii. Have the same applications and functions
- iv. Same manufacturing process

**D. Period of Investigation**

The POI covers imports of HDPE from 2015 to 2019. The domestic Petrochemical industry's overall performance during the POI is also evaluated to establish whether the increased imports are the substantial cause of the serious injury to the domestic industry.

**E. Determination of Increased Volume of Imports**

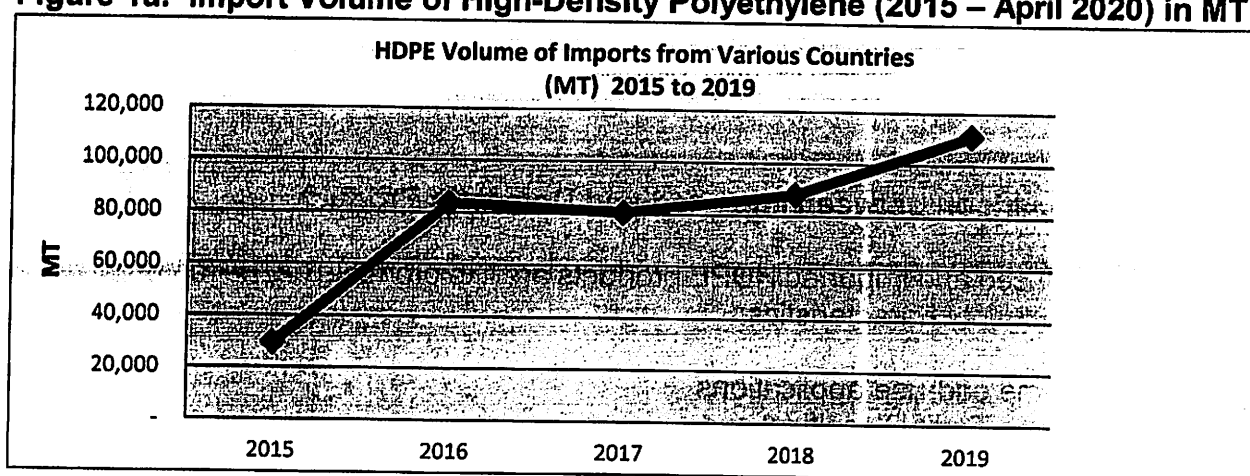
Rule 7.2 a of the IRRs of RA 8800 provides that *"the Secretary shall essentially determine whether there has been an increase in the volume of imports, in particular, either in absolute terms or relative to production in the Philippines, The Secretary shall evaluate import data for the last five (5) years preceding the application to substantiate claims of a significant increase in import volume. Provided, however, that in some cases, the period may be adjusted to cover a shorter period, if necessary, in order to take into account other considerations that will ensure the appropriateness of the chosen period, e.g. seasonality of product, availability of data or facility in the verification of data."*

## E.1. Absolute Terms

The period of investigation covers HDPE imported into the Philippines from 2015 to 2019. All data were sourced from the Bureau of Customs (BOC), Single Administrative Document-Import Entry and Internal Revenue Document (SAD-IEIRD). For the analysis of import volume, DTI removed imports made by the domestic industry as well as products with different commodity descriptions from the product subject to the investigation (i.e. polyethylene wax, ethylene acrylic acid copolymer, polypropylene, et al) to determine whether the increase in imports is the principal cause of serious injury to the industry.

### 1.a Import Volume

**Figure 1a: Import Volume of High-Density Polyethylene (2015 – April 2020) in MT**



**Table 1: Import Volume of High-Density Polyethylene - HDPE (2015 – 2019) in MT**

Year	Period of Investigation (POI)					2020 (Jan-April)
	2015	2016	2017	2018	2019	
Imports	29,692	83,553	80,672	88,268	111,124	40,282
Absolute Increase Decrease	-	53,860	(2,881)	7,596	22,856	3,365
Growth	-	181%	(3%)	9%	26%	-

Source: Bureau of Customs (SAD-IEIRD)

The HDPE growth rate of imports for the five (5)-year period was recorded at 274%. Over the five (5)-year period, there were two significant surges in imports, one in 2016 and the other in 2019.

The importation of HDPE recorded at 29,692MT in 2015. Imports rose by 53,860MT or 181% in 2016. It slightly declined by 2,881MT or 3% in 2017. Imports increased by 7,596MT or 9% in 2018. In 2019, imports significantly increased by 22,856MT or by 26% compared to the previous year. For January-April 2020, imported HDPE is already 36% of the 2019 level.

## 1. b. Share of Imports (by Country)

Table 2.a: Share of Imports (by Country) HDPE (2015 – 2019) in MT

COUNTRY	2015	% Share	2016	% Share	2017	% Share	2018	% Share	2019	% Share
Thailand	13,600	45.80	32,957	39.44	25,914	32.12	31,177	35.32	32,372	29.13
Malaysia	4,757	16.02	12,977	15.53	10,175	12.61	19,972	22.63	31,596	28.43
Singapore	7,905	26.62	23,134	27.69	19,804	4.55	16,789	19.02	22,506	20.25
Saudi Arabia	1,188	4.00	6,107	7.31	14,966	18.55	13,384	15.16	12,513	11.26
<b>Total: Major Suppliers</b>	<b>27,450</b>	<b>92.45</b>	<b>75,175</b>	<b>89.97</b>	<b>70,859</b>	<b>87.84</b>	<b>81,322</b>	<b>92.13</b>	<b>98,987</b>	<b>89.08</b>
<b>Other Suppliers</b>	<b>2,243</b>	<b>7.55</b>	<b>8,378</b>	<b>10.03</b>	<b>9,813</b>	<b>12.16</b>	<b>6,946</b>	<b>7.87</b>	<b>12,136</b>	<b>10.92</b>
<b>Total: Major &amp; Other Sources</b>	<b>29,693</b>	<b>100.00</b>	<b>83,553</b>	<b>100.00</b>	<b>80,672</b>	<b>100</b>	<b>88,268</b>	<b>100.00</b>	<b>111,123</b>	<b>100.00</b>

Source: Bureau of Customs (SAD-IEIRD)

The Philippine major suppliers of HDPE are Thailand, Malaysia, Singapore, and Saudi Arabia throughout the POI.

**OTHER SOURCES**

Table 2.b: Share of Imports (by Country) HDPE (2015 – 2019) in MT

Country	2015	% Share	2016	% Share	2017	% Share	2018	% Share	2019	% Share
United Arab Emirates	1,430	4.82	866	1.04	1,095	1.36	829	0.94	867	0.78
Japan	124	0.42	116	0.14	280	0.35	410	0.46	339	0.31
United States	14	0.05	1,659	1.99	1,853	2.30	910	1.03	4,655	4.19
Republic of Korea	53	0.18	502	0.60	-	0.00	74	0.08	237	0.21
Indonesia	315	1.06	1,360	1.63	2,393	2.97	805	0.91	1,402	1.26
PROC	172	0.58	1,235	1.48	124	0.15	368	0.42	949	0.85
Kuwait	101	0.34	198	0.24	149	0.18	-	0.00	50	0.04
Austria	1	0.00	1	0.00	-	-	-	0.00	-	-
Chinese Taipei	5	0.02	537	0.64	3,560	4.41	1,817	2.06	2,318	2.09
Belgium	28	0.09	-	-	-	-	-	-	-	-
India	1	0.00	-	-	-	-	-	-	-	-
Finland	-	-	6	0.01	-	-	-	-	21	0.02
Netherlands	-	-	192	0.23	44	0.05	44	0.05	69	0.06
Qatar	-	-	271	0.32	67	0.08	1,036	1.17	934	0.84
Germany	-	-	1	0.00	-	-	22	0.02	-	-
Russia	-	-	1,436	1.72	-	-	-	-	-	-
Hong Kong	-	-	-	-	250	0.31	372	0.42	243	0.22
Viet Nam	-	-	-	-	-	-	161	0.18	24	0.02
Brazil	-	-	-	-	-	-	99	0.11	6	0.005
Egypt	-	-	-	-	-	-	-	-	24	0.02
<b>Total: Other Suppliers</b>	<b>2,243</b>	<b>7.55</b>	<b>8,378</b>	<b>10.03</b>	<b>9,813</b>	<b>12.16</b>	<b>6,946</b>	<b>7.87</b>	<b>12,136</b>	<b>10.92</b>

Source: Bureau of Customs (SAD-IEIRD)

*Such positive determination shall not be made unless the investigation demonstrates on the basis of objective evidence, the existence of the causal link between the increased imports of the product under consideration and serious injury or threat thereof to the domestic industry. When factors other than increased imports are causing injury, such injury shall not be attributed to increased imports."*

## A. Share of the Domestic Industry and Market Share

### A.1 Philippine Market (size and share)

Table 4: Total Apparent Philippine Market (MT) – HDPE

Year	Imports		Domestic Sales Volume*	Total Apparent Philippine Market*	% Increase Decrease	Market Share		
	Non-Manufacturers	Manufacturers				Imports		Domestic Sales
						Non-Manufacturers	Manufacturers	
2015	29,692	-	100	100	-	xxx	xxx	xxx
2016	83,553	3	119	154	54%	xxx	xxx	xxx
2017	80,672	7	138	167	8%	xxx	xxx	xxx
2018	88,268	-	136	171	3%	xxx	xxx	xxx
2019	111,124	1	120	175	2%	xxx	xxx	xxx

Sources: Bureau of Customs (BOC-SAD-IEIRD) – Import Volume

Domestic Industry – Domestic Sales Volume

\*Figures indexed due to confidentiality

Table 4 shows the total apparent Philippine market for HDPE from 2015 to 2019.

The total Philippine apparent market continuously increased during the POI. In 2016, the apparent Philippine market increased by 54%, as imports increased by 181%, while the domestic sales volume increased by 19%. It continued to increase by 8% in 2017. In 2018, apparent consumption grew by 3% as imports increased by 9% while domestic sales slightly declined by 1%. In 2019, there was a 2% growth in the apparent demand due to the 26% increase in imports while the domestic industry's share dropped by 12%.

The share of HDPE imports (non-manufacturers) relative to the total Philippine market increased significantly from 2015 to 2019 while the domestic industry's imports accounted for less than one percent during the POI.

The share of domestic sales volume to the Philippine market declined from 2015 to 2016 and improved in 2017. However, the share of domestic sales declined in 2018 and further declined in 2019. According to the domestic industry, in 2018, for them to compete and defend their market share, the industry tried to keep their production volumes at a certain level. By 2019, production volumes had to be reduced to mitigate further losses.

Thus, the industry's market share shrank as the share of imports increased during the POI.



## B.1. Domestic Sales

Table 5: Domestic Sales Volume and Value

Year	Sales Volume (MT)	% Increase (Decrease)	Sales Value (Php Million)	% Increase (Decrease)
2015	100	-	100	-
2016	119	18.86	112	12.50
2017	138	15.98	141	25.15
2018	136	(1.11)	164	16.48
2019	120	(11.98)	126	(22.92)

Source: Domestic Industry

\*Figures indexed due to confidentiality

The industry's domestic sales volume increased from 2015 to 2017 by 19% and 16%, respectively. However, sales volume declined by 2% in 2018 and further declined by 12% in 2019. Meanwhile, domestic sales value increased from 2015 to 2018 by 13%, 25%, and 17%, respectively. However, in 2019 sales value declined by 23%.

According to the domestic industry, they have been steadily losing substantial sales volume from its existing customers since 2017 due to an increase in the volume of importation of competing products that are being sold at much lower prices, even lower than the industry's own cost to produce and sell.

## B.2. Export Sales

Table 6: Export Sales Volume and Value

Year	Sales Volume (MT)	% Increase (Decrease)	Sales Value (Php Million)	% Increase (Decrease)
2015	100	-	100	-
2016	113	13.41	108	8.24
2017	82	(28.06)	83	(23.53)
2018	61	(24.80)	74	(10.00)
2019	62	1.65	62	(16.73)

Source: Domestic Industry

\*Figures indexed due to confidentiality

The industry's export sales volume and value increased in 2016 by 14% and 8%, respectively. However, sales volume declined by 28% in 2017 and further by 25% in 2018 while sale value decreased by 24% and 10%, respectively. Despite the increase in sales volume by 2% in 2019, sales value declined by 17% in the same year.

According to the domestic industry, they sell mainly through accredited distributors and trading partners but may also sell directly to plastic product manufacturers. Since 1998, they sold their products to over 30 countries worldwide.

### C. Production

Table 7: Total Production

Year	2015	2016	2017	2018	2019
Production (MT)*	100	110	114	115	94
% Increase (Decrease)	-	9.82	3.73	0.71	(17.73)

Source: Domestic Industry

\*Figures indexed due to confidentiality

The industry's production volume increased from 2015 to 2018 by 10%, 4%, and 1%, respectively. However, production volume declined by 18% in 2019 which is the lowest level of production during the POI.

According to the domestic industry, they tried to maintain a certain production volume in 2018 to maintain its market share. However, production volume was reduced in 2019 to mitigate any further losses.

### D. Capacity Utilization

Table 8: Capacity Utilization

Year	Installed/Rated Capacity (MT)*	Actual Production (MT)*	Capacity Utilization Rate (%)	% Increase (Decrease)
2015	100	100	77.29	-
2016	100	107	83.01	7.40
2017	100	121	93.76	12.95
2018	100	100	77.32	(17.54)
2019	100	87	67.42	(12.80)

Source: Domestic Industry

\*Figures indexed due to confidentiality

The industry operates two (2) PE, both of which can produce HDPE and LLDPE. Since the capacity is not mutually exclusive for the two products, the table above represents combined data for both HDPE and LLDPE.

The capacity utilization rate exhibited an increasing trend from 2015 to 2017 by 7% and 13%, respectively. It began to decline in 2018 by 18% and further by 13% in 2019. The highest capacity was registered in 2017 at 94%, almost at full capacity.

According to the domestic industry, they are currently expanding capacity (upcoming x x kTA) in response to increasing local market volume demand but has been finding it difficult to compete for the past three (3) years as the import volume have surged and continue to surge, affecting the operations and financial performance.

## E. Finished Goods Inventory

Table 9: Finished Goods Inventory

Year	Volume (MT)	% Increase (Decrease)	Value (Php Million)	% Increase (Decrease)
2015	100	-	100	-
2016	93	(6.93)	99	(1.12)
2017	79	(14.99)	138	39.30
2018	213	169.26	348	151.97
2019	183	(14.16)	240	(30.90)

Source: Domestic Industry

\*Figures indexed due to confidentiality

The finished goods inventory volume declined from 2015 to 2017 by 7% and 15%, respectively, while inventory value slightly declined by 1% in 2016 but increased by 39% in 2017. In 2018, both volume and value increased by 169% and 152%, respectively as the industry tried to maintain production volume. In 2019, the inventory volume and value declined by 14% and 31%, respectively as the industry managed their production output to mitigate further losses.

According to the domestic industry, the remaining inventory year on year has been increasing since 2017, which reflects the increasing difficulty to reduce inventory by year-end due to an increase in the volume of lower-priced imports in the market.

## F. Cost to Produce

Table 10: Cost to Produce

Particulars	2015	2016	2017	2018	2019
Raw Materials*	94.2	93.9	90.1	93.6	92.7
Direct Labor*	0.6	0.7	0.2	0.2	0.2
Manufacturing Overhead*	5.2	5.4	9.8	6.2	7.1
<b>Cost to Produce (per MT)*</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>% Increase (Decrease)**</b>	<b>-</b>	<b>(9.93)</b>	<b>12.37</b>	<b>12.04</b>	<b>(5.30)</b>

Source: Domestic Industry

\*Figures in percentage to the cost to produce per MT

\*\*Computed based on the absolute figures of cost to produce per MT

The industry's production cost per unit declined in 2016 by 10%, increased in 2017 by 12%, and an additional increase of 12% in 2018. In 2019, it declined by 5%.

According to the domestic industry, the primary raw material component for HDPE is the olefin ethylene and comonomers butene and hexene which contributes to approximately 95% of the average overall raw material cost. The primary raw material ethylene is sourced mainly from the upstream naphtha cracker operated by JG Summit Olefins Corporation (JGSOC), a JGSPC's affiliate company. The secondary raw materials (catalysts and additives), the comonomers hexene-1 and butene-1 are 100% imported. A formula of conversion which specifically shows the breakdown of raw material usage and wastage per product grade from the Department of Science and Technology are secured for various HDPE products.

## G. Profit and Loss

Table 11: Earnings Before Interest and Taxes

Particulars	2015	2016	2017	2018	2019	% Increase (Decrease) (2015 vs.2016)	% Increase (Decrease) (2016 vs.2017)	% Increase (Decrease) (2017 vs.2018)	% Increase (Decrease) (2018 vs.2019)
Sales*	100	112	141	164	126	12.50	25.15	16.48	(22.92)
Cost of Goods Sold*	100	112	143	168	133	11.69	28.15	17.13	(20.64)
Gross Profit*	100	132	85	77	(32)	31.88	(35.69)	(9.61)	(141.98)
Selling, General and Administrative Expenses*	100	137	68	86	31	36.69	(50.19)	25.86	(64.43)
Earnings Before Interests, Taxes, Depreciation and Amortization (EBITDA)*	100	83	248	(13)	(648)	(15.64)	196.07	(104.97)	5,133.57
Depreciation and Amortization*	100	81	158	238	186	(19.03)	94.65	51.66	(21.95)
EBIT*	(100)	(80)	(135)	(298)	(385)	(19.83)	69.32	120.05	28.93

Source: Domestic Industry

\*Figures indexed due to confidentiality

The industry's gross profit increased in 2016 by 32% but declined from 2017 to 2019 by 36%, 10%, and 142%, respectively. The industry had resulted in a negative gross profit in 2019 while it showed already negative earnings before interests, taxes, depreciation, and amortization (EBITDA) for 2018 and 2019. Throughout the POI, the industry exhibited losses in earnings before interest and taxes (EBIT). In 2016, an improvement of 20% was recorded in EBIT which means their loss was reduced by 20%. However, their losses worsen by 70% in 2017, 120% in 2018, and 29% further in 2019.

According to the domestic industry, the low prices of imported HDPE have affected the gross profit on the domestic sales of locally produced HDPE. In order to compete and defend its market share, the producer is forced to adopt a policy of import parity pricing, and as such is forced to sell its products at a price below its cost to produce and sell plus a reasonable margin to recover the investment.

In addition, the local producer, in trying to maintain market share, has tried to produce volume greater than a certain level despite the poor financial returns that have started to be experienced from 2017 onwards.

## H. Return on Sales

Table 12: Return on Sales

Particulars	2015	2016	2017	2018	2019
Sales (Million)*	100	112	141	164	126
EBITDA (Million)*	100	83	248	(13)	(649)
Return on Sales	xxx	xxx	xxx	xxx	xxx
% Increase (Decrease)	-	(25.01)	136.58	(104.27)	(6,689.38)

Source: Domestic Industry

\*Figures Indexed due to confidentiality

Return on sales (ROS) based on EBITDA reflected a declining trend throughout the POI except for an increase in 2017. ROS were positive from 2015 to 2017, however, loss on sales were recorded in 2018 and 2019.

## I. Employment

Table 13: Employment

Year	Employees for Production	% Increase (Decrease)	Salaries and Wages (Million)	% Increase (Decrease)
2015	100	-	100	-
2016	115	15.05	97	(2.35)
2017	127	10.66	121	24.42
2018	141	10.91	129	5.88
2019	168	18.85	180	40.18

Source: Domestic Industry

\*Figures indexed due to confidentiality

The table above shows the direct labor personnel for the entire operation of both HDPE and LLDPE products as the operation is shared in the same facility where personnel can handle either product.

Employment throughout the POI increased yearly by 15% in 2016, 11% in 2017 and 2018, and 19% in 2019. While salaries and wages declined by 2% in 2016 and continuously increased from 2017 to 2019 by 24%, 6%, and 40%, respectively.

According to the domestic industry, despite the reduced production volume in the past two years, the industry continues to hire skilled workers, such as engineering, science, or technical vocational graduates, thus, contributing to reducing the need for these skilled workers to find overseas employment. Despite weakening production, continuous hiring is important to ensure that there is sufficient buffer for the current operational

requirements plus some pre-hiring of those to be trained for the upcoming new builds which will start operations in the last quarter of 2020.

## J. Productivity

Table 14: Productivity

Year	Production Volume (MT)*	Employees for Production*	Labor Productivity (MT/employees)	% Increase (Decrease)
2015	100	100	xxx	-
2016	107	115	xxx	(6.64)
2017	121	127	xxx	2.07
2018	100	141	xxx	(25.65)
2019	87	168	xxx	(26.64)

Source: Domestic Industry

\*Figures indexed due to confidentiality

The labor productivity decreased by 7% in 2016, increased slightly by 2% in 2017 but declined from 2018 to 2019 by 26% and further by 27% due to the hiring of additional employees despite the reduced production.

## K. Price Effects

### 1. Price Undercutting

Table 15: Ex-Work Price of Domestic Product vs. Landed Cost of Imported Product for 2019 (P in MT)

Country	Wtd. Ave. Landed Cost (P / MT) (a)	% Share to Total Imports	Ex-work Price of Domestic Industry (P / MT) (b)	% Undercutting (b-a)/b*100 % Undercutting (b-a)/b*100
Major Sources:				
Thailand	xxx	29.44	xxx	1.14
Malaysia	xxx	28.73		0.39
Singapore	xxx	20.21		(0.71)
Saudi Arabia	xxx	11.38		(3.40)
United States	xxx	3.70		7.36
Other Sources	xxx	6.53		(8.01)
<b>Wtd. Average (from all Sources)</b>	<b>xxx</b>	<b>100.00</b>		<b>(0.33)</b>

Sources: Wtd. Ave. Landed Cost- BOC-SAD-IERD  
Ex-Work Price - Domestic Industry

Price undercutting refers to the extent at which the imported product is consistently sold at a price below the domestic selling price of the like product.

Based on BOC-IEDs for 2019, the top five (5) major source countries of HDPE were Thailand, Malaysia, Singapore, Saudi Arabia, and the United States.

Price undercutting was recorded from Thailand, Malaysia, and the USA at 1%, 0.39%, and 7%, respectively.

## 2. Price Suppression

Table 16: Average Ex-Work Price of Domestic Product vs. Cost of Production for 2019

Year	Ex-Work Price of Domestic Industry (P / MT) (A)	Cost of Production (P / MT) (B)	Difference (P / MT) (A-B)	% Price Suppression -(A-B)/B * 100
2015	100	100	100	(4.81)
2016	95	90	(13)	0.70
2017	104	101	50	(2.38)
2018	122	113	(51)	2.17
2019	107	107	124	(5.57)

Source: Domestic Industry

\*Figures indexed due to confidentiality

Price suppression refers to the extent by which the imported product prevents the domestic producer from increasing its selling price to a level that will allow full recovery of its cost of production

Price suppression was recorded during the POI, 5% in 2015, 2% in 2017, and 6% in 2019.

## 3. Price Depression

Table 17: Domestic Selling Price of Locally Manufactured HDPE (P in MT)

Year	Ex-Work Price of Domestic Industry (P / MT)	% Increase/ (Decrease)
2015	100	-
2016	95	(4.71)
2017	104	8.93
2018	122	17.26
2019	107	(12.47)

Source: Domestic Industry

\*Figures indexed due to confidentiality

Price depression reflects the extent to which the domestic producer decreases its selling price in order to compete with the imported product.

Price depression was recorded at 5% in 2016 and 12% in 2019.

## **L. Other Adverse Effects**

- The negative financial status of the industry has made it increasingly difficult to get financing for its modernization, expansion, and operational requirements.
- Cash flow has been affected because of the lower return on sales.
- The industry has been unable to increase the wages up to global standards because of the negative financial situation and it is more difficult to hold on and retain its more important technical personnel.

## **M. Other Matters**

### **Update of JGSPC Operations Amidst the Covid19**

- Able to continue with manufacturing operations on skeletal force, following IATF guidelines on proper social distancing, enhanced health monitoring, and safety procedures
- Ongoing expansion projects have completely stopped during the ECQ period but with GCQ in effect in Batangas since May 16, their BOI-registered projects including the PE project is set to resume construction, following DPWH guidelines and under LGU monitoring.
- Severely impacted by the COVID health pandemic due to lockdowns causing the shutdown of customers' plants, sudden dive in prices and drop in demand, not just locally but worldwide
- Significantly affected by recently enacted EO 113, effective for the duration of Bayanihan Heal as One Act, which adds 10% duty to naphtha and LPG that they use as raw materials to produce petrochemical products. Thus, making them even more uncompetitive compared to imported products who are not likewise being imposed with additional tariffs during this pandemic period by their respective governments.

## **VI.1 FINDINGS AND CONCLUSIONS**

### **A. Volume of Imports**

#### **A.1 In Absolute Terms**

- Between 2015-2016, imports significantly increased by about 54,000MT or 181%, slightly declined by about 3,000MT or 3% in 2017. Imports were up again by 9% in 2018 and 26% in 2019.
- Imported HDPE recorded a 274% growth rate over the five (5)-year period
- Imports in 2020 (Jan– April) increased by 9% from 2019 (Jan – April) level.
- Thailand, Singapore, Malaysia, and Saudi Arabia are the major suppliers during the POI

#### **A.2 In Relative Terms**

- Share of imports to domestic production increased from 17% in 2015 to 45% in 2016.
- Slightly declined to 42% in 2017; increased again to 45% in 2018 and further to 69% in 2019.



## **B. Serious Injury**

### **B.1. Market Size**

- Total apparent consumption grew by 54% in 2016, 8% in 2017, 3% in 2018 and 2% in 2019.

### **B.2. Market Share**

- The share of imports of non-manufacturers (i.e importers, distributors, etc.) increased from 22% in 2015 to 47% in 2019 while imports of the domestic industry recorded a minimal share.
- The share of the domestic market declined by 78% to 53% in 2019.

### **B.3. Domestic Sales Volume of Value**

- Domestic sales volume declined by 1% in 2018 and further by 12% in 2019.
- Sales Value increased from 2016 to 2018. It went down by 23% in 2019.

### **B.4. Export Sales Volume of Value**

- Export sales volume increased by 13% in 2016 but dropped by 28% in 2017 and further by 25% in 2018.
- In 2019, export sales volume slightly increased by 2%.
- Sales value increased in 2016 but declined from 2017 to 2019 due to the decline in sales volume.

### **B.5 Production**

#### **a. Total Production**

- Production volume increased by 10% in 2016. In 2017 and 2018, production increased by 4% and less than 1%, respectively.
- In 2019, it plunged by 18%, as the industry reduced production to mitigate any further losses.

#### **b. Capacity Utilization**

- The capacity utilization rate increased from 2015 (77%) to 2017 (94%).
- It declined by 77% in 2018 and recorded its lowest in 2019 at 67%.

#### **c. Inventories**

- Inventories declined from 2016 (7%) to 2017 (15%), increased by 169% in 2018 and declined by 14% in 2019 due to decrease in production and sales

#### **d. Cost to Produce**

- Declined in 2016 by 10%. Increased by 12% in 2017 due to increases in raw materials by 8% and manufacturing overhead cost by 103%.
- In 2018, it increased again by 12%.

- In 2019, the cost to produce declined further by 5% due to the decrease in raw materials by 6%.

## **B.5 Profitability**

### **a. Profit and Loss**

- Throughout the POI, the industry exhibited losses in EBIT.
- In 2016, an improvement of 20% was recorded in EBIT which means a loss was reduced by 20%. However, losses worsen by 70% in 2017, 120% in 2018, and 29% further in 2019.

### **b. Return on Sales**

- Negative return on sales based on EBITDA incurred in 2018 and 2019.

## **B.6 Employment and Salaries and Wages**

- Employment throughout the POI increased yearly by 15% in 2016, 11% in 2017 and 2018, and 19% in 2019.
- Salaries and wages declined by 2% in 2016 and continuously increased from 2017 to 2019 by 24%, 6%, and 40%, respectively.

## **B.7 Productivity**

- Labor productivity decreased in 2016 by 7%, slightly improved in 2017 by 2%
- Declined from 2018 to 2019 by 26% and 27%, respectively, due to a decrease in production but increase in employment

## **B.8 Prices**

### **a. Price Undercutting**

- Price undercutting was recorded from Thailand, Malaysia, and the USA at 1%, 0.39%, and 7%, respectively.

### **b. Price Depression**

- Price depression was recorded at 5% in 2016 and 12% in 2019.

### **c. Price Suppression**

- Price suppression was recorded during the POI, 5% in 2015, 2% in 2017, and 6% in 2019.

## VII. CAUSATION

The above evidence shows that serious injury to the domestic industry was caused by the increased imports based on the following:

- A significant increase in the volume of imported HDPE in 2016 (181%), 2018 (9%), and in 2019 (26%) preceded the serious injury to the industry. There was an abrupt and notably sharp increase in the volume of imports both in absolute terms and relative to domestic production from 2015 to 2019. The industry suffered a loss of market share, declining domestic sales, production, utilization rate, reduction in labor productivity, cost of production, incurred losses, and increase inventory.
- The conditions of competition showed that the market share of the domestic product decreased during the POI from 78% in 2015 to 53% in 2019, as the share of imports in the domestic market significantly increased.

## VIII. ADJUSTMENT PLAN

The domestic industry submitted its adjustment plan to undertake improvement to increase production capacity while also improving efficiency and cost of production. JGSPC is currently undertaking or plans to undertake the following projects and initiatives to help optimize existing assets, ensure the viability of upcoming investments, and improve competitiveness versus products for which safeguards are being sought.

### A. Improve Economies of Scale and Competitive Advantage

#### 1. New 250,000 MTA PE Plant

- Currently, ongoing construction is an additional 250 kTA PE plant that will be able to produce both HDPE and LLDPE, using US-based Chevron Phillips MarTECH ADL™ PE production technology. This capacity, in addition to currently existing 320 kTA, will bring JGSPC's combined PE production capacity to 570 kTA, in an effort to match projected local market demand in the short to medium term. As the petrochemical complex itself already exists and has many of its utilities outside battery limits available or requiring minimal modification to accommodate increase in capacity, the production economies of scale are improved as well as overall costs to produce and sell.
- In addition, use of the MarTech ADL™ PE production technology will allow JGSPC to produce higher value PE products, such as bimodals and metallocenes, currently not produces its existing PE plants, enabling JGSPC to cover a wider range of HDPE applications currently served by imported products, and increase its domestic market share.

Status	: Construction Ongoing
Date Available	: 4Q 2020

## B. Improve on Costs

### 1. Power – 100 MW Coal-Fired Power Plant

- The petrochemical complex where the HDPE polymer manufacturing plants are located currently source its power requirements primarily from its diesel generators and secondarily from the grid. With power costs making up most of the variable cost, it is imperative to find ways to improve on both reducing the power costs and reducing power consumption. To this end, JGSPC plans to put up a 100 MW coal-fired power plant to provide for its own power requirements, using the latest Circulating Fluidized Bed technology for cost efficiency and even reduced emissions as opposed to current diesel or bunker-fired generation.

Status : Under evaluation  
Date Available : 2023

### 2. Raw Material Cost – Expansion of Cracker (source of ethylene)

- JGSPC's cracking facility is currently also undergoing expansion, again in an effort to improve economies of scale and to help build up capacity to match projected local market demand in the short to medium term. With the 50% increase in cracking capacity, larger bulk shipments of the feedstock naptha and LPG are made possible, which in turn will translate into lower feedstock costs per MT for the production of ethylene, which is the primary raw material for HDPE.

Status : Ongoing Commissioning  
Date Available : 1Q 2020

### 3. Raw Material Costs – Additives and Catalyst Savings

- With the new PE project, JGSPC invested in a catalyst activator which will allow JGSPC to activate its catalyst onsite rather than offsite (abroad), including those catalysts used for its existing plants, thereby helping to reduce on catalyst activation costs.

Status : Construction Ongoing  
Date Available : 4Q 2020

- JGSPC also continuously reviews its catalysts and additives portfolio in an effort to find suitable alternative additives at lower cost, as well as higher productivity/efficiency alternatives for its catalysts.

Status : Ongoing

### C. Improve Plant Reliability

#### 1. Benchmarking Study on Reliability and Maintenance Performance

- JGSPC is undertaking a maintenance benchmarking study to analyze the primary factors impacting plant reliability and maintenance effectiveness, thereby helping identify key inefficiencies, to enable the maintenance team to focus efforts on specific and measurable improvements and leverage resources to where most needed.

Status : Ongoing

Date Available : 2Q 2020

### D. Improve Production Efficiency and Output

#### 1. Purchase of Operator Training Simulator (OTS)

- For the new PE plant, JGSPC has procured an Operator Training Simulator which is a system of networked computers programmed to mimic the actual plant processes and associated control systems. The plant model running in the OTS server is built using the same engineering data that is used in the actual plant, using graphics that are identical to those used in actual control systems. With simulated training, trainees can get operational experience in an environment that closely resembles the actual plant without posing any risk to the actual plant. Thereby helping minimize incidence of plant upsets caused by human-related errors.

Status : Ongoing purchase of software

Date Available : 2H 2020

#### 2. Advanced Process Control (APC) System

- Advanced Process Control (APC) is a technology that uses computers to predict the behavior of the plant and manage the changes that continuously happen in the plant. It attempts to mimic the actions of the most efficient and knowledgeable human control operator, except it works untiringly 24/7, 365 days in a year.

JGSPC uses APC modules to help improve plant control stability, feed, and production maximization, reduce energy consumption, and reduce variability in product quality

#### Upgrade for Existing PE Plants:

Status : Completed

Date Available : 2020

#### New APC for New PE Plant:

Status : Data gathering to be initiated once new PE plant is operational

Date Available : Targeting 2024

## **IX. THE WORLD TRADE ORGANIZATION AGREEMENT ON SAFEGUARDS**

Article XIX (Emergency Action on Imports of Particular Products) of the General Agreement on Tariffs and Trade (GATT) 1994 provides that: *"If, as a result of unforeseen developments and of the effect of the obligations incurred by a contracting party under this Agreement, including tariff concessions, any product is being imported into the territory of that contracting party in such increased quantities and under such conditions as to cause or threaten serious injury to domestic producers in that territory of like or directly competitive products the contracting party shall be free, in respect of such product, and to the extent and for such time as may be necessary to prevent or remedy such injury, to suspend the obligation in whole or in part or to withdraw or modify the concession."*

The WTO Appellate Body in **Argentina – Footwear and Korea – Certain Dairy Products** established that safeguard measures may be applied only when the prerequisites of Article XIX of GATT 1994 and the conditions of the Agreement on Safeguards (both Multilateral Trade Agreements and as such are integral parts of the WTO Agreement) are clearly demonstrated.

The investigation is governed by RA 8800, the Safeguard Measures Act, and the terms and conditions of the Agreement on Safeguards.

### **IX.a. Unforeseen Development**

US and Middle East petrochemical plants are heavily cost-advantaged versus Asian petrochemical plants

The US shale gas boom has led to an oversupply of PE, which is primarily intended for export and is expected to flood Asian markets.

The US-China trade war has caused the displacement of usual trade flows, giving rise to increased exports into the Philippines

MOSCOW (MRC)--Prices of HDPE have started to increase in Russia after slipping over the last nine months in Russia due to excess supply, according to the ICIS-MRC Price Report.

Russian HDPE prices began to decrease in October last year mostly because of a significant surge in imports, significantly affecting prices through to June 2020, when levels fell to the lows of 2014. The situation began to change in July amid a significant increase in the cost of polyethylene in foreign markets. Source: Independent commodity Intelligence Services (i.c.i.s) <https://www.icis.com/explore/resources/news/2020/07/16/10530897/russia-hdpe-prices-begin-to-rise-after-long-period-of-falls>

That according to plastic pricing information supplier ChemOrbis, which reports that poor demand from buyers in China has spurred a number of global LLDPE sellers to divert their cargoes to other markets in hopes of achieving greater sales, while some traders inside China are offering their existing LLDPE stocks to other global markets in order to pare down their stock levels. One trader also told ChemOrbis he was offering Chinese LLDPE film to buyers in Southeast Asia in hopes of speeding up his sales.

Source: <https://www.plasticstoday.com/author/PlasticsToday-Staff> Jun 03, 2011

New trade regulations and COVID-19 are having an impact on the supply chain and forcing manufacturing companies to develop new sourcing strategies to avoid disruptions. As a result, many plastics processors are switching to regional supply partners located in North America and Mexico.

For regional reshoring to be a win-win business decision, cost and quality of products must be maintained, explained Chroma Color, adding that many plastics processors are "switching to Chroma Color to achieve" both of these goals. Chroma also attributes the switch to its extensive technical capabilities, geographically diverse manufacturing sites, market-specific expertise, and "relentless pursuit" of cost-effective innovative technologies that bring value to its customers. Source: Clare Goldsberry | Jul 16, 2020, plasticstoday.com

#### **IX.b. Notification Requirement**

Article 12.1 of the WTO Agreement on safeguards states that a Member shall immediately notify the Committee on Safeguards upon:

- (a) initiating an investigatory process relating to serious injury or threat thereof and the reasons for it;

#### **IX.c. Articles 11 of the ASEAN Trade in Goods Agreement (ATIGA)**

Articles 11 of the ATIGA provide provisions on the Notification as follows:

##### *"Article 11 - Notification Procedures*

1. *Unless otherwise provided in this Agreement, Member States shall notify any action or measure that they intend to take:*

- (a) which may nullify or impair any benefit to the other Member States, directly or indirectly under this Agreement; or*
- (b) when the action or measure may impede the attainment of any objective of this Agreement.*

2. *x x x*

3. *A Member State shall make a notification to Senior Economic Officials Meeting (SEOM) and the ASEAN Secretariat before effecting such action or measure referred to in paragraph 1 of this Article. Unless otherwise provided in this Agreement, notification shall be made at least sixty (60) days before such an action or measure is to take effect. A Member State proposing to apply an action or measure shall provide adequate opportunity for prior discussion with those Member States having an interest in the action or measure concerned."*

## **X. RECOMMENDATIONS**


Based on the above findings, there are indications that increased imports of HDPE pellets and granules are the substantial cause of serious injury to the domestic industry in terms of declining domestic sales, production, utilization rate, reduction in labor productivity, incurred losses, suppression, depression and increase inventory.

Wherefore, premises considered, the Department, finds *prima facie* evidence to initiate and conduct a preliminary safeguard investigation to determine whether HDPE pellets and granules are being imported into the Philippines in increased quantities and is causing serious injury to the domestic industry.

Let the notice of initiation of a preliminary safeguards investigation be published in two (2) newspapers of general circulation and individual notices be sent to all interested parties including the country members concerned.

SO ORDERED.

28 August 2020

  
**RAMON M. LOPEZ**  
Secretary



## Annex A

## LIST OF IMPORTERS OF 3901

## I. IMPORTERS OF PETROCHEMICALS

	IMPORTER		IMPORTER
1.	A L A COMMODITY ENTERPRISES	37.	DOUBLE INFINITY WORLD TRADE INC
2.	ABUNDANCEYIELD TRADING CORPORATION	38.	DRAGONLUCK ENTERPRISES CO
3.	ALCOS GLOBAL CORPORATION	39.	DUNHILL PLASTIC INDUSTRIES INC.
4.	ALPHATECH DEVELOPMENT CORPORATION	40.	EASTERN INTERNATIONAL PLASTIC PACKAGING
5.	APOLLO BAG INDUSTRIAL CORPORATION	41.	EDNARRO TRADING
6.	ARC REFRESHMENTS CORPORATION	42.	ELTA INDUSTRIES INCORPORATED
7.	ARROW PLASTIC INDUSTRIES CORP.	43.	ESSEL PROPACK PHILIPPINES INC.
8.	ARTPACK PHILIPPINES INC.	44.	EURO-MED LABORATORIES PHILS. INC.
9.	ASHLAR INDUSTRIAL CORPORATION	45.	EVERBRIGHT NET & TWINE MFG. CORP.
10.	ASIA BREWERY INCORPORATED	46.	EVERGOOD PLASTIC INDUSTRY INC.
11.	ASIAN PLASTIC CENTER	47.	FILPET INC.
12.	ASTROBAG MANUFACTURING CORP.	48.	FLEXIBLE PACKAGING PRODUCTS CORP.
13.	AXIANTA TRADING CO. LTD.	49.	FLEXO MANUFACTURING CORPORATION
14.	BASIC PACKAGING CORPORATION	50.	FORTUNE INTERNATIONAL TRADING CORP.
15.	BEST AVANTRADE INC	51.	GILVAN PACKAGING CORPORATION
16.	BESTANK MANUFACTURING CORPORATION	52.	GLOBAL COMPAK INC.
17.	BRIGHT GOAL TRADING	53.	GLOWING LINE TRADING
18.	C.B. ANDREW ASIA INC	54.	GOLDENFORTUNE ENTERPRISES CO
19.	CALYPSO PLASTIC CENTER CO.	55.	GOLDSTAR POLYMER TRADING CORP.
20.	CANGCO DOTINGCO ENTERPRISES	56.	GOODYEAR STEEL PIPE CORPORATION
21.	CEBU SENTRA PLASTICS CORP.	57.	GRAND ARRAIER TRADING
22.	CEBU SHERILIN TRADING CORPORATION	58.	GREIF PHILIPPINES INC.
23.	CEED FORMING CORPORATION	59.	GT INDUSTRIAL DEVELOPMENT INC
24.	CENTREUM CORPORATION	60.	HANTEX INTERNATIONAL CORP.
25.	CHEMPLAS COMMERCIAL TRADING INC	61.	HANTEX TRADING CO. INC
26.	CITIPLAS PLASTIC SERVICING CENTER	62.	HYDRO PHIL. ASIA INC.
27.	CLOSURE SYSTEMS INTERNATIONAL	63.	INCON INDUSTRIAL CORPORATION
28.	COEX INC.	64.	INNOVAPLAS PACKAGING CORPORATION
29.	COFTA MOULDINGS CORPORATION	65.	INTEGRATED LOGISTICS PHILS INC
30.	CONSOLIDATED COPOLYPACK CORPORATION	66.	INTEGRATED PACKAGING CORPORATION
31.	CORNERSTONE INTERNATIONAL PHILS.	67.	INTERNATIONAL SYNTHETIC INDS. INC.
32.	CROWN ASIA CHEMICALS CORP.	68.	ISLAND PLASTIC MFG CO INC.
33.	CYBERMANN INDUSTRIAL CORPORATION	69.	JFILM PHILIPPINES INC.
34.	CYBERMATE INDUSTRIAL CORPORATION	70.	JGKS UNIVERSAL PLASTIC CORPORATION
35.	CYGNUS INDUSTRIES INC.	71.	JHAYCOR INDUSTRIES INC.
36.	D & L POLYMER AND COLOURS INC.	72.	JHAYMARTS INDUSTRIES INC

73.	JOSEFINO TRADING	108.	POLYGOLD MANUFACTURING CORPORATION
74.	JUNNI INDUSTRIES INC.	109.	POLYLINE INDUSTRIES INC.
75.	KILOTRADE MARKETING	110.	POSITIVE FAXFAIR TRADING
76.	KRAH PIPES MANILA INC	111.	PREMIER CREATIVE PACKAGING INC.
77.	LEWISTON CONCEPT INDUSTRIAL	112.	PRIMA PLASTIC MANUFACTURING CORP.
78.	LICHT INDUSTRIAL CORPORATION	113.	PROSPERITYLINK MARKETING CO
79.	LICTON INDUSTRIAL CORP.	114.	RIM 21 CORP
80.	LIQUID PACKAGING CORPORATION	115.	ROBTON INDUSTRIES INC.
81.	LONDON INDUSTRIAL PRODUCTS INC.	116.	RPMC PLASTICS PHILS. INC.
82.	LUCKY SAPPHIRE TRADING	117.	SAN MIGUEL YAMAMURA PACKAGING
83.	MACONDRAY PLASTICS PRODUCTS INC	118.	SENCAR INDUSTRIAL CORPORATION
84.	MANLY PLASTICS INC.	119.	SHRINKPACK PHILS. CORP.
85.	MHYLINK TRADING	120.	SILVERMANE MARKETING VENTURES CORP
86.	MICHEM MARKETING INC.	121.	SOLIDPOINT MARKETING
87.	MIESTO INTERNATIONAL FOODS CORP.	123.	SPECTRUM HIGHLANDS MKTG CORP
88.	MILLS & MOTT INTERNATIONAL TRADING	124.	STYROTECH CORPORATION
89.	MOLDEX PRODUCTS INC	125.	SYNERGY SALES INTERNATIONAL CORP
90.	MULTIFLEX RNC PHILS. INC.	126.	SYNTHETIC WORLD CORPORATION
91.	NETTEX MFG. & EXPORT CORP.	127.	TAT RECYCLABLES AND RENEWABLES CORP
92.	NIKKOPLAS INC.	128.	TENKEI PRIME INTL CORP.
93.	OMEGA-VENTURES WL TRADING CORP.	129.	TOP MOST PACKAGING CORPORATON
94.	OUTBACK FIVE STAR CLARK PHILS INC	130.	TRADESPHERE INDUSTRIAL COMMODITIES
95.	PACIFIC TWINE AND NET MFG CO INC	131.	TRANS WORLD TRADING CO.INC.
96.	PAKVITE MFG. CORP.	132.	UNIBAG MANUFACTURING CORPORATION
97.	PARAGONPLATINUM INTERNATIONAL	133.	UNITED POLYRESINS INC.
98.	PHELPS DODGE PHILIPPINES ENERGY PRO	134.	UNITY SYNTHETIC CORPORATION
99.	PHIL VALVE MFG CO	135.	UNIVERSAL ROBINA CORPORATION
100.	PHILIPPINE FISHING GEAR INDUSTRIES INC.	136.	URIGHT RESOURCES CORPORATION
101.	PHILIPPINE GLASS PROCESSING SPECIALIST INC	137.	VITAL MANUFACTURING CO. INC.
102.	PHILIPPINE SPRING WATER RESOURCES INC	138.	WOODSTRALL AND SONS INCORPORATED
103.	PHILIPS WIRE AND CABLE CO	139.	WPC DESU TENSO TRADING
104.	PHILPLASTIC AND POLYMERS INC.	140.	ZELLER PLASTIK PHILIPPINES INC.
105.	PLASTIC CONTAINER PACKAGING CORPORA	141.	ZEST-O CORPORATION
106.	PLASTIMER INDUSTRIAL CORPORATION	142.	ZHONG FU PACKAGING INC.
107.	PLASTMANN INDUSTRIAL CORPORATION	143.	ZHONG FU UNIMAGNA PHILS. INC.

## Annex B

## LIST OF EXPORTERS OF 3901

## II. EXPORTERS OF PETROCHEMICALS

	EXPORTER	COUNTRY
1.	ABU DHABI POLYMERS CO. LTD.	United Arab Emirates
2.	BASELL ASIA PACIFIC LTD	PROC
3.	BASELL SALES & MARKETING CO., B. V.	Germany
4.	BASELL SALES & MARKETING CO., B. V.	Netherlands
5.	BOREALIS AG	Austria
6.	BOREALIS AG	Finland
7.	BOREALIS AG	Netherlands
8.	BOROUGE PTE LTD.	United Arab Emirates
9.	BOROUGE PTE LTD.	PROC
10.	BOROUGE PTE LTD.	Singapore
11.	BRASKEM S.A.	Brazil
12.	CHEVRON PHILLIPS SINGAPORE CHEMICALS PTE. LTD.	Singapore
13.	CHEVRON PHILLIPS CHEMICALS ASIA PTE	United States
14.	DEGUCHI CO LTD	Japan
15.	DOW CHEMICAL PACIFIC (SINGAPORE) PTE LTD	Singapore
16.	DOW CHEMICAL PACIFIC LTD.	Hong Kong
17.	DOW CHEMICAL PACIFIC LTD.	Malaysia
18.	EASTERN PETROCHEMICAL CO. (SHARQ) LTD	Saudi Arabia
19.	ENERGY COMPLEX	Thailand
20.	EQUATE PETROCHEMICAL CO K.S.C.C.	Kuwait
21.	EVER RICH CORPORATION LTD.	Hong Kong
22.	EVER RICH CORPORATION LTD.	Chinese Taipei
23.	EXXONMOBIL CHEMICAL ASIA PACIFIC	Saudi Arabia
24.	FINE SOURCE LIMITED	Chinese Taipei
25.	FORMOSA CHEMICALS & FIBRE CORP	Chinese Taipei
26.	FORMOSA PLASTICS CORPORATION	Chinese Taipei
27.	GULF POLYMERS DISTRIBUTION COMPANY	United Arab Emirates
28.	HORNG JIUH PLASTIC MACHINERY CO., LTD.	Chinese Taipei
29.	INTRACO TRADING PTE LTD	Singapore
30.	ITOCHU PLASTIC PTE LTD.	Singapore
31.	KIN SANG CHEMICAL LIMITED	Hong Kong
33.	KINGFA SCI. & TECH.CO.,LTD.	PROC
34.	KOREA TRADING AND INDUSTRIES CO. LTD	Republic of Korea (South Korea)
35.	LG CHEM LTD.	Republic of Korea (South Korea)
36.	LOTTE CHEMICAL TITAN CORP SDN BHD	Malaysia
37.	LOTTE CHEMICAL TITAN TRADING SDN BH	Malaysia
38.	LOTTE CHEMICAL TITAN TRADING SDN BH	Singapore
39.	M/S. BARODA PACKAGING TECHNOLOGY	India

40.	MTS LOGISTICS, INC.	United States
41.	MTS LOGISTICS, INC.	United States
42.	OPEC PLASTICS JOINT STOCK CO.	Viet Nam
43.	P T LOTTE CHEMICAL TITAN NUSANTARA	Indonesia
44.	PACKAGING ENTERPRISE LLC	United States
45.	PETRONAS CHEMICAL MARKETING	Malaysia
46.	PLASTRADE MATERIALS TECHNOLOGY	Malaysia
47.	PMS CO., LTD.	Chinese Taipei
48.	POLYMER LINK SDN BHD	Malaysia
49.	PT. CHANDRA ASRI PETROCHEMICAL TBK.	Indonesia
50.	PTT POLYMER MARKETING CO. LTD.	Thailand
51.	QATAR CHEMICAL & PETROCHEMICAL MARKETING AND DISTRIBUTION COMPANY	Qatar
52.	RABIGH REFINING & PETROCHEMICAL CO.	Saudi Arabia
53.	RAVAGO DISTRIBUTION CENTER NV	Belgium
54.	SABIC ASIA PACIFIC PTE LTD.	Singapore
55.	SASOL CHEMICALS PACIFIC LTD.	Singapore
56.	SAUDI ARAMCO PRODUCTS TRADING CO.	United Arab Emirates
57.	SAUDI ETHYLENE & POLYEHTYLENE CO.	Saudi Arabia
58.	SAUDI PLASTIC MARKETING EST	Saudi Arabia
59.	SCG PLASTIC CO., LTD.	Thailand
60.	SIAM POLYETHYLENE CO., LTD.	Thailand
61.	SUMITOMO CHEMICAL ASIA PTE LTD.	Singapore
62.	THE DOW CHEMICAL COMPANY	United States
63.	THE EGYPTIAN ETHYLENE & DERIVATIVES CO	Egypt
64.	TOYOTA TSUSHO CORPORATION	Republic of Korea (South Korea)
65.	TRACIMEXCO SUPPLY CHAINS AND AGENCY SERVICES JSC	Viet Nam
66.	UNIT CARGO CONTAINER LINE, INC.	United States
67.	VINMAR OVERSEAS LTD.	United States
68.	XIAMEN ZHONGDAO IMPORT AND EXPORT CO LTD	PROC
69.	YUYAO ZHONGYU ECONOMIC AND TRADE CO LTD	PROC

**DEPARTMENT OF TRADE AND INDUSTRY**

**SAFEGUARD MEASURES CASE NAME:**

**APPLICATION OF  
PETROCHEMICALS INDUSTRY**

**PUBLIC VERSION**

**SGM CASE NO. : SG06-2020**

**DATE : 28 August 2020**

**REPORT ON THE INITIATION OF A PRELIMINARY  
INVESTIGATION ON THE APPLICATION FOR  
SAFEGUARD MEASURES ON THE IMPORTATION OF  
LINEAR LOW-DENSITY POLYETHYLENE (LLDPE)  
FROM VARIOUS COUNTRIES**

**REPORT ON THE INITIATION OF A PRELIMINARY INVESTIGATION ON THE  
APPLICATION FOR SAFEGUARD MEASURES ON THE IMPORTATION OF LINEAR  
LOW-DENSITY POLYETHYLENE (LLDPE) FROM VARIOUS COUNTRIES**

**I. INTRODUCTION**

This is an evaluation report on the evidence submitted by the petrochemical industry represented by JG Summit Petrochemical Corporation (JGSPC). JGSPC filed an application for safeguard measures on the importation Linear Low-Density Polyethylene (LLDPE) pellets and granules from various countries.

JGSPC alleged that serious injury to the domestic industry was caused by the increased import volume of LLDPE which are classified under ASEAN Harmonized Tariff Nomenclature (AHTN) Codes:

LLDPE
3901.10.12
3901.10.92
3901.40.00
3901.90.90

**A. The Philippine Industry's Petition**

**A.1 Parties to the Petition - Domestic Industry/Petitioner**

Section 4 (f) of RA 8800 defines "domestic industry" as referring to the *"domestic producers, as a whole, of like or directly competitive products manufactured or produced in the Philippines or those whose collective output of like or directly competitive products constitutes a major proportion of the total production of those products"*.

Rule 4.1 of the Implementing Rules and Regulations (IRRs) of RA 8800 further provides that: *"(1) in the case of a domestic producer which also imports the product under consideration, only its domestic production of the like or directly competitive product shall be treated as part of the domestic production, or (2) in the case of a domestic producer which produces more than one product, only that portion of its production of the like or directly competitive product may be treated as part of such domestic industry"*.

JGSPC was incorporated in 1994 as a joint venture between JG Summit Holdings, Inc. and Marubeni Corporation. Today, they are the largest manufacturer of polyolefins in the Philippines. It is the first and only integrated PE and PP resin manufacturer in the country. They produce HDPE, LLDPE, PP-H and PP-R resins marketed under the EVALENE® brand using the world-renowned UNIPOL™ technology.<sup>1</sup>

Their in-house fabrication capabilities allow JGSPC to understand their customers' technical, operational and performance requirements. The Product R&D laboratory has the following equipment that enable them to conduct lab-scale fabrication and analysis: blown film line, tubular water quench/IPP film line, cast film line, Injection molding, blow molding, compression molding, compounding using single screw or twin screw extruder.<sup>2</sup>

According to JGSPC, for local and indirect export sales, JGSPC primarily sells its LLDPE resins directly to over 200 local plastic products manufacturers and secondarily through distributors. While for export sales, JGSPC mainly sells through accredited distributors and trading partners. Since 1998, JGSPC has sold its products to over thirty (30) countries worldwide.

Pursuant to Rule 4.1 cited above, JGSPC meets the legal requirement since JGSPC is the sole manufacturer producing x x x metric tons in 2019 which accounted for a 100% share of the total domestic production of LLDPE.

## **A.2. Importers and Exporters of LLDPE**

Annexes A and B are the lists of importers and exporters of LLDPE products during the period of the investigation.

## **A.3. Industry Overview**

Petrochemicals is a strategic sector of the economy that could anchor the country's industrial development. Because of its strong linkages upstream, midstream and downstream, the sector provides robust multiplier effects on other main sectors of the economy such as construction, electronics and computer, medical services, transportation and automotive, packaging, education, telecommunications, electrical and water distribution, agriculture and fishery, and furniture, among others<sup>3</sup>.

The industry's objective is to achieve self-sufficiency in strategic resin supply and increase the petrochemical sector's contribution to total Philippine GDP from Php 44 B in 2010 to Php 113 B in 2018 and Php 215 B by 2025 through the progressive integration of upstream, midstream and downstream components of the sector. Such progressive integration will involve the entry into various other petrochemical branches that will provide exponential value addition in different industries, spurring domestic and export growth and potentially contributing up to 5-10% of GDP by 2025.

## **B. Role of the DTI under RA 8800 (The Safeguard Measures Act)**

### **B.1 Examination of Evidence to Justify Initiation of Investigation**

In establishing whether there is sufficient evidence to justify the initiation of the investigation, the Secretary relied on Section 6 paragraph 3 of RA 8800 and its IRRs. The said provision provides, *"the Secretary shall review the accuracy and adequacy of the evidence adduced in the petition to determine the existence of a prima facie case that will justify the initiation of a preliminary investigation within five (5) days from receipt of the petition."*

---

<sup>3</sup> <http://industry.gov.ph/industry/petrochemicals/>

## **B.2 Documents Received/Gathered by DTI**

On 09 March 2020, DTI received an application from JGSPC for the initiation of a safeguard measures investigation on the importation of LLDPE from various countries.

DTI evaluated the initial documents and informed JGSPC to submit additional data. On 27 May 2020, additional data were submitted by the industry, i.e. product description, raw materials used, exports information, among others

## **II. THE PROCESS OF INITIATION OF INVESTIGATION**

### **A. Acceptance of the Petition**

In accepting the petition, the Secretary relied on the following provisions of the IRRs of RA 8800:

Rule 6.3 b provides, *"the Secretary shall preliminary screen the application if the following conditions are met:*

- i. The application is signed;*
- ii. All relevant questions are answered or the reasons for the absence of information are given; and*
- iii. The attachments to the application are complete".*

Rule 6.3 c provides, *"failure to supply all the information sought in the application will lead to the non-acceptance thereof. The Secretary shall check the consistency of the information provided in the application against other information available to him. The Secretary shall clarify any unclear or ambiguous statement with the applicant".*

Rule 6.3 d provides, *"as soon as the requirements are completed, the Secretary shall acknowledge in writing that he has already accepted a properly documented application. The date of the Secretary's letter shall be considered as day zero (0) of the five (5) calendar days within which he is required to determine whether there is sufficient evidence to justify the initiation of an investigation. The Secretary shall issue the letter as soon as practicable from his receipt of a properly documented application. If the applicant decides to give the Secretary further information in support of an application, the five (5) day period herein mentioned shall commence from the date of the submission of the new information. After this period, the Secretary shall no longer entertain any information that may be provided by the applicant".*

On 24 August 2020, the Secretary officially informed JG Summit Petrochemical Corporation (JGSPC) that their petition has been accepted as a properly documented application.



## **B. Decision to Initiate**

Rule 6.4 a of the IRRs of RA 8800 provides that *"the Secretary shall, within five (5) calendar days from the date of his letter of acceptance of the properly documented application referred to in Rule 6.3.d, examine the accuracy and adequacy of the evidence submitted to determine the existence of a prima facie case that will justify the initiation of a preliminary investigation. In assessing the sufficiency of evidence provided in the application, the Secretary shall satisfy himself that based on the documents available to him, he can determine that the increased imports of the product under consideration are the substantial cause of the serious injury or threat thereof to the domestic producers of the product under consideration"*.

## **III. SAFEGUARD MEASURES: PARAMETERS FOR EVALUATION**

### **A. The Concept and Purpose of Safeguards**

Section 2 of RA 8800 provides that *"the state shall promote the competitiveness of domestic industries and producers based on sound industrial and agricultural development policies, and the efficient use of human, natural and technical resources. In pursuit of this goal and in the public interest, the state shall provide safeguard measures to protect domestic industries and producers from increased imports which cause or threaten to cause serious injury to those domestic industries and producers."*

### **B. Relevant Provisions on Initiation of Investigation**

Section 6 paragraphs 1 and 2 of RA 8800 states that *"any person, whether natural or juridical, belonging to or representing a domestic industry may file with the Secretary a verified petition requesting that action be taken to remedy the serious injury or prevent the threat thereof to the domestic industry caused by increased imports of the product under consideration."*

*The petition shall include documentary evidence supporting the facts that are essential to establish:*

- (1) an increase in imports of like or directly competitive products;*
- (2) the existence of serious injury or threat thereof to the domestic industry; and*
- (3) the causal link between the increased imports of the product under consideration and the serious injury or threat thereof".*

Rule 6.2 a of the IRRs of RA 8800 further provides that *"any person whether natural or juridical, belonging to or representing a domestic industry, may file a written application using a proforma protestant's questionnaire which shall include evidence of (i) an increase in the volume of imports of the like or directly competitive products, (ii) the existence of serious injury or threat thereof to the domestic industry; and (iii) causal link between the increased imports of the product under consideration and the serious injury or threat thereof. The applicant shall submit four (4) copies of the application, including annexes, two (2) copies of which shall contain the non-confidential summaries of the information submitted"*.

#### IV. THE EVIDENCE PRESENTED BY THE INDUSTRY

##### A. The Product Subject to the Petition

Section 4 (h) of RA 8800 defines like product as *"a domestic product which is identical, i.e. alike in all respects to the imported product under consideration, or in the absence of such a product, another domestic product which, although not alike in all respects, has characteristics closely resembling those of the imported product under consideration"*.

Section 4 (e) of RA 8800 further provides, *"directly competitive product shall mean domestically produced substitutable products"*.

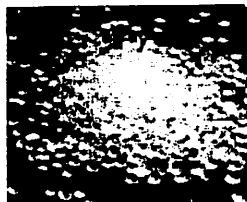
A comparison of the imported LLDPE with the locally produced LLDPE is required to determine if these are like or directly competitive products.

##### A.1 Domestic Product

Linear Low-Density Polyethylene (LLDPE) is a type of polyethylene resin with densities ranging from 919-925 kg. Specific gravity of less than 0.94. Primarily sold as translucent white pellets or in granular form.



Actual Size



Pellets



Granules

##### A.2. Product Specification

Resin Type	Evalene® Grade Name	Melt Index (190°C/2.6kg, g/10 min)	Density (g/cm³)	Characteristics
LLDPE	LF08262	0.8	0.926	Excellent puncture and tear resistance, Good tensile strength and stiffness, Barefoot
	LF08263	0.8	0.926	Excellent puncture and tear resistance, Good tensile strength and stiffness, Excellent openability, Hig slip, High antiblock
	LF10181	1	0.918	Outstanding puncture and tear resistance, Excellent openability, High slip, High antiblock
	LF10182	1	0.918	Outstanding puncture and tear resistance, Barefoot
	LF20184	2	0.918	Good clarity, Balanced mechanical properties, Good openability, Medium slip, Medium antiblock
	LF20185	2	0.918	Excellent stretchability, Barefoot
	LF20186	2	0.918	Good mechanical properties, Excellent openability, High slip, High antiblock

Source: Domestic Industry

### A.3. Uses and Applications

LLDPE is very flexible and elongates under stress. It can be used to make thinner films, with better environmental stress cracking resistance. It also has good resistance to chemicals making them ideal for a broad range of applications such as:

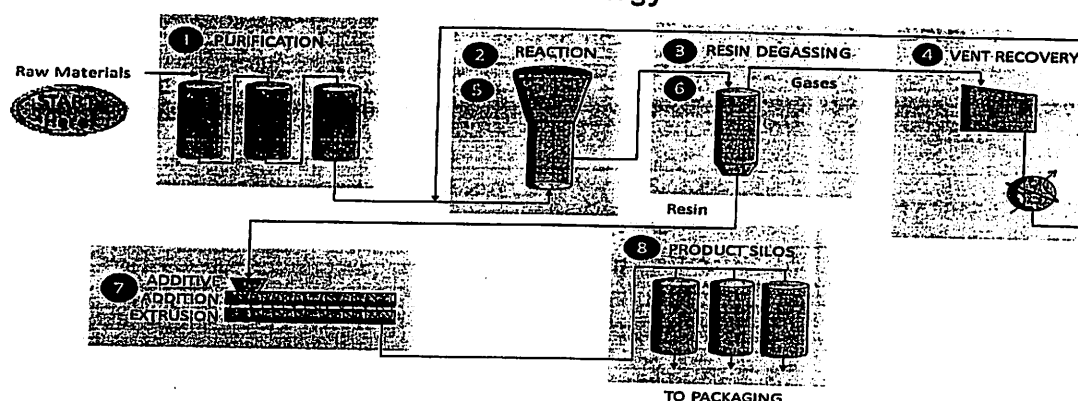
Evaluated Grade Name	Typical Application
LF08262	Heavy duty sacks, Agricultural films, High-performance flexible and industrial packaging requiring superior puncture and tear resistance
LF08263	Heavy duty sacks, Agricultural films, High-performance flexible and industrial packaging requiring superior puncture and tear resistance, high tear strength and good openability
LF10181	Flexible packaging, Agricultural films, Industrial liners, Garment bags, Trash bags, Shopping bags, Ice bags
LF10182	Flexible packaging
LF20184	Flexible packaging, Agricultural films, Industrial liners, Garment bags, Trash bags, Shopping bags, Ice bags
LF20185	Stretch films, Flexible packaging
LF20186	Flexible packaging, Agricultural films, Industrial liners, Garment bags, Trash bags Shopping bags, Ice bags

### A.4. Manufacturing Process

UNIPOL™ PE Gas Technology – Existing 320 kilotons per annum (kTA) plant is one of the world's most widely used PE technology, having more than 165 licensed reactor lines in 28 countries, with a total capacity of more than 48 Million MTA.

According to JGPSC, LLDPE resins product are produced using the two world's most widely used PE Process technologies and as such are similar and substitutable with other imported LLDPE resin products, especially those used for the same end-use applications

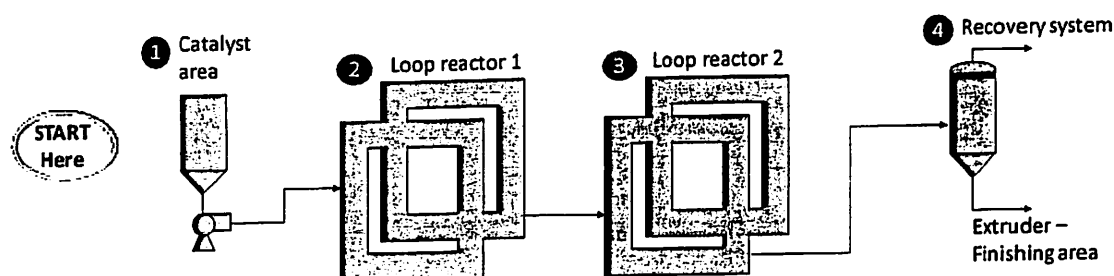
#### a) Univation UNIPOL™ PE Process Technology



Source: Domestic Industry

JGSPC will start to operate its third PE line using US-based Chevron Phillips MarTECH ADL™ PE production technology. The line, which has a rated production capacity of 250kTA, will be able to produce bimodal, metallocene, and bimodal metallocene LLDPE resins, for which there is no local production. The new PE line will have an initial planned grade slate of 6 new grades for LLDPE, thereby bringing the total number of LLDPE grades to 13 by end-2020.

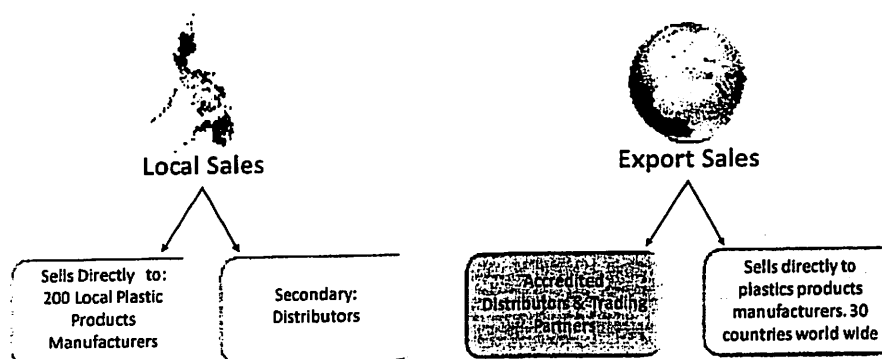
b) Chevron Phillips MarTech™ ADL PE Process: Technology able to produce



Source: Domestic Industry

#### A.5. Distribution Channel

For local and indirect export sales, JGSPC primarily sells its LLDPE resins directly to over 200 local plastic products manufacturers and secondarily through distributors. While for export sales, JGSPC mainly sells through accredited distributors and trading partners.



Source: Domestic Industry

## B. Imported Product

### B.1. Product Description under the Tariff and Customs Code 3901 (LLDPE)

AHTN	Description	MFN	AANZFTA 2015-2020	2015	AFTA 2016-2018	2019-2020	AJCEPA 2015-2018	ATIGA
3901	Polymers of ethylene, in primary forms							
3901.10.12	--- Linear Low-Density Polyethylene (LLDPE)	10						0
3901.10.92	--- Linear Low-Density Polyethylene (LLDPE)	10						0
3901.40.00	- Ethylene-alpha-olefin copolymers, having a specific gravity of less than 0.94	3						0
3901.90.90	-- Other	3	0	2	1	0	0	0

Source: Classification based on The Philippine Tariff Finder (PTF) of the Tariff Commission. Retrieved from <http://tariffcommission.gov.ph/finder>

AHTN	ASEAN Harmonized Tariff Nomenclature
MFN	Most Favoured Nation
AANZFTA	ASEAN-Australia/New Zealand Free Trade Agreement
ACFTA	ASEAN-China Free Trade Agreement
AFTA	ASEAN-India Free Trade Agreement
AJCEPA	ASEAN-Japan Comprehensive Economic Partnership Agreement
AKFTA	ASEAN-Korea Free Trade Agreement
ATIGA	ASEAN Trade in Goods Agreement
PJEPA	Philippines-Japan Economic Partnership Agreement

JGSPC claimed that LLDPE is imported into the domestic market under several HS and AHTN tariff headings, under 3901.10.12, 3901.10.92, 3901.40.00 and 3901.90.90. The multiplicity of tariff lines that LLDPE currently falls under is the subject of a petition filed by the Association of Petrochemical Manufacturers of the Philippines (APMP) with the Tariff Commission, received January 21, 2019, currently still pending resolution. APMP filed the petition in support of JGSPC, as JGSPC is the affected member company producing LLDPE. According to JGSPC, per the Tariff Commission, their combined report for both LLDPE and LDPE petitions is already submitted to the Committee on Tariff Related Matters. To date, awaiting the decision of the CTRM.

## C. Comparison between Imported and Domestic Product

Locally produced and imported LLDPE products are like products on the following because of the subsequent characteristics:

- Same end-use applications
- Same Tariff Classifications
- Have same applications and functions
- Same manufacturing process

## D. Period of Investigation

The POI covers imports of LLDPE from 2015 to 2019. The domestic Petrochemical industry's overall performance during the POI is also evaluated to establish whether the increased imports are the substantial cause of the serious injury to the domestic industry.

## E. Determination of Increased Volume of Imports

Rule 7.2 a of the IRRs of RA 8800 provides that “the Secretary shall essentially determine whether there has been an increase in the volume of imports, in particular, either in absolute terms or relative to production in the Philippines, The Secretary shall evaluate import data for the last five (5) years preceding the application to substantiate claims of significant increase in import volume. Provided, however, that in some cases, the period may be adjusted to cover a shorter period, if necessary, in order to take into account other considerations that will ensure the appropriateness of the chosen period, e.g. seasonality of product, availability of data or facility in verification of data.”

### E.1. Absolute Terms

The period of investigation covers linear low-density polyethylene (LLDPE) imported into the Philippines from 2015 to 2019. All data were sourced from the Bureau of Customs (BOC), Single Administrative Document-Import Entry and Internal Revenue Document (SAD-IEIRD). For the analysis of import volume, DTI removed imports made by the domestic industry as well as products with different commodity descriptions from the product subject to the investigation (i.e. polyethylene wax, ethylene acrylic acid copolymer, polypropylene, low density polyethylene et al) to determine whether the increase in imports is the principal cause of serious injury to the industry.

#### 1.a Import Volume

Figure 1a: Import Volume of Linear Low-Density Polyethylene (2015 – 2019) in MT

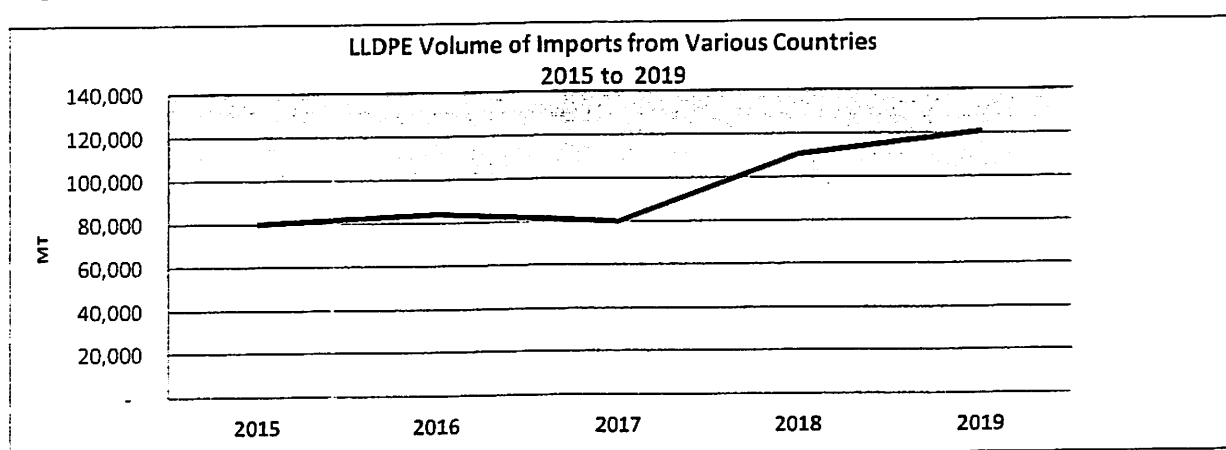


Table 1: Import Volume of Linear Low-Density Polyethylene – LLDPE

Year	Period of Investigation					2020 (Jan-Apr)
	2015	2016	2017	2018	2019	
Imports	80,094	83,965	79,813	110,275	120,601	35,041
Absolute	-	3,871	(4,152)	30,462	10,325	-
% Increase Decrease	-					
Growth	-	5%	(5%)	38%	9%	-

Source: Bureau of Customs (SAD-IEIRD)

The volume of LLDPE imports grew from approximately 80,00MT (2015) to 121,000 MT (2019).

In 2016, imported LLDPE increased by 3,871 MT or 5% over 2015 level. Imports fell by 4,152 or 5% in 2017. In 2018, imported LLDPE significantly increased by 30,462 MT or 38% from 2017 level. In 2019, it continued to increase by 10,325MT or 9% from a year ago.

#### 1. b. Share of Imports (by Country)

Table 2: Share of Imports (by Country) Linear Low-Density Polyethylene (2015– 2019) in MT

COUNTRY	2015	% Share	2016	% Share	2017	% Share	2018	% Share	2019	% Share
Singapore	17,119	21.37	24,943	29.71	29,855	37.41	35,809	32.47	36,315	30.11
Thailand	19,642	24.52	20,493	24.41	15,580	19.52	13,131	11.91	17,906	14.85
Qatar	12,175	15.20	13,825	16.47	13,035	16.33	17,325	15.71	18,613	15.43
Saudi Arabia	14,101	17.61	11,892	14.16	11,576	14.50	23,574	21.38	19,947	16.54
Malaysia	4,450	5.56	1,098	1.31	2,083	2.61	3,220	2.92	4,489	3.72
Republic of Korea	578	0.72	819	0.98	1,934	2.42	3,704	3.36	3,781	3.14
Canada	3,182	3.97	3,454	4.11	1,665	2.09	2,305	2.09	3,732	3.09
United States	332	0.41	927	1.10	245	0.31	5,737	5.20	11,498	9.53
<b>Major Sources:</b>	<b>71,577</b>	<b>89.37</b>	<b>77,451</b>	<b>92.24</b>	<b>75,972</b>	<b>95.19</b>	<b>104,807</b>	<b>95.04</b>	<b>116,281</b>	<b>96.42</b>
<b>Other Sources</b>	<b>8,517</b>	<b>10.63</b>	<b>6,514</b>	<b>7.76</b>	<b>3,841</b>	<b>4.81</b>	<b>5,469</b>	<b>4.96</b>	<b>4,319</b>	<b>3.58</b>
<b>Total: (Major &amp; Other Sources)</b>	<b>80,094</b>	<b>100.00</b>	<b>83,965</b>	<b>100.00</b>	<b>79,813</b>	<b>100.00</b>	<b>110,275</b>	<b>100.00</b>	<b>120,601</b>	<b>100.00</b>

Source: Bureau of Customs (SAD-IEIRD)

Singapore, Thailand, Qatar and Saudi Arabia remained to be the largest suppliers of LLDPE during the POI (2015 to 2019). Other major suppliers are South Korea (2018 to 2019) and Malaysia (2015 and 2019) which contributed more than three percent (3%) share to total Philippine imports.

**Other Sources:**

Below are the other sources of LLDPE:

Table 3: Share of Imports Linear Low-Density Polyethylene (2015– 2019) in MT

Country	2015	% Share	2016	% Share	2017	% Share	2018	% Share	2019	% Share
United Arab Emirates	1,443	1.80	1,262	1.50	1,614	2.02	2,214	2.01	2,031	1.68
Indonesia	802	1.00	1,752	2.09	365	0.46	140	0.13	702	0.58
Hong Kong	127	0.16	16	0.02	347	0.43	208	0.19	217	0.18
Chinese Taipei	657	0.82	698	0.83	317	0.40	831	0.75	429	0.36
PROC	350	0.44	159	0.19	99	0.12	399	0.36	351	0.29
South Africa	-	-	-	-	50	0.06	-	-	173	0.14
Viet Nam	198	0.25	74	0.09	50	0.06	85	0.08	60	0.05
United Kingdom	198	0.25	-	-	43	0.05	-	-	-	-
India	-	-	39	0.05	26	0.03	-	-	-	-
Japan	3,772	4.71	1,930	2.30	918	1.15	351	0.32	206	0.17
Netherlands	173	0.22	-	-	12	0.02	-	-	-	-
Kuwait	-	-	198	0.24	-	-	-	-	149	0.12
Australia	-	-	-	-	-	-	-	-	1	0.001
Spain	578	0.72	99	0.12	-	-	842	0.76	0.03	0.00002
Austria	-	-	-	-	-	-	1	0.00	-	-
Belgium	-	-	-	-	-	-	149	0.13	-	-
Brazil	50	0.06	50	0.06	-	-	-	-	-	-
Switzerland	-	-	-	-	-	-	250	0.23	-	-
Germany	95	0.12	40	0.05	-	-	-	-	-	-
France	74	0.09	-	-	-	-	-	-	-	-
Russian Federation	-	-	198	0.24	-	-	-	-	-	-
<b>Total : Other Sources</b>	<b>8,517</b>	<b>10.63%</b>	<b>6,514</b>	<b>7.76%</b>	<b>3,841</b>	<b>4.81%</b>	<b>5,469</b>	<b>4.96</b>	<b>4,319</b>	<b>3.58</b>

Source: Bureau of Customs (SAD-IEIRD)

**E.2. Relative Terms**

Table 3a: Comparison of Volume of Imports to Domestic Production of LLDPE (2015-2019) in MT

Year	Imports (MT)	Domestic Production (MT)*	Share of Imports to Domestic Production (%)
2015	80,094	100	xxx
2016	83,965	102	xxx
2017	79,813	138	xxx
2018	110,275	67	xxx
2019	120,601	71	xxx

Sources: Bureau of Customs (BOC-SAD-IEIRD) – Import Volume

Domestic Industry – Domestic Production

\*Figures indexed due to confidentiality

The total imports of LLDPE relative to domestic production increased in 2016 and declined to in 2017. The share of imports relative to domestic production significantly increased to in 2018 and recorded its highest share in 2019.



# V. EVIDENCE OF SERIOUS INJURY

Rule 3.1 of the IRRs of RA 8800 provides that "a general safeguard measure under Chapter II of these IRRs shall apply where there is an increase in the quantity of a product being imported, whether absolute or relative to the domestic production, which is determined to be a substantial cause of serious injury or threat thereof to the domestic industry".

Section 4 (o) of RA 8800 also provides that "a serious injury shall mean a significant impairment in the position of the domestic industry after evaluation by competent authorities of all relevant factors of an objective and quantifiable nature having a bearing on the situation of the industry concerned. In particular, the rate and amount of the increase in imports of the product concerned in absolute and relative terms, the share of the domestic market taken by increased imports, changes in levels of sales, production, productivity, capacity utilization, profit and losses, and employment".

Section 12 of RA 8800 further provides that "in reaching a positive determination that the increase in the importation of the product under consideration is causing serious injury or threat thereof to a domestic industry producing like products or directly competitive products, all relevant factors having a bearing on the situation of the domestic industry shall be evaluated. These shall include, in particular, the rate and amount of the increase in imports of the products concerned in absolute and relative terms, the share of the domestic market taken by the increased imports, and changes in the level of sales, production, productivity, capacity utilization, profits and losses, and employment.

Such positive determination shall not be made unless the investigation demonstrates on the basis of objective evidence, the existence of the causal link between the increased imports of the product under consideration and serious injury or threat thereof to the domestic industry. When factors other than increased imports are causing injury, such injury shall not be attributed to increased imports."

## A. Share of the Domestic Industry

### A.1 Philippine Market (size and share)

Table 4: Total Apparent Philippine Market (MT) - LLDPE

Year	Imports	Domestic Sales Volume	Apparent Philippine Market	% Increase/Decrease	Non-Manufacturers	Manufacturers	Market Share
2015	80,094	54	100	-	XXX	XXX	XXX
2016	83,965	410	124	12%	XXX	XXX	XXX
2017	79,813	251	157	7%	XXX	XXX	XXX
2018	110,275	556	82	-1%	XXX	XXX	XXX
2019	120,601	892	77	6%	XXX	XXX	XXX

Sources: Bureau of Customs (BOC-SAD-IEIRD) – Import Volume  
Domestic Industry – Domestic Sales Volume  
\*Figures indexed due to confidentiality

Table 4 showed the total apparent Philippine market for LLDPE. Over the five (5) year period, the total apparent market generally showed an upward trend. The apparent market for LLDPE increased by 12% in 2016, 7% in 2017 and slightly declined by 1% in 2018 as imports soared by 38% while domestic sales volume declined by 48%. In 2019, apparent consumption hits its highest record as imports rose by 9% while domestic sales dropped by 6%.

The share of imports of non-manufacturers relative to the total Philippine market continuously increased from a range of 54% to 78% during the POI whereas the producer imports less than one percent (1%).

On the other hand, the share of domestic sales increased from 2015 to 2017. According to the industry, in order to maintain their market share, they try to produce and sell despite the poor financial returns. The year 2017 marked the record high LLDPE domestic industry production volume. However, in 2018, according to the domestic industry production volumes had to be drastically reduced by 51% owing to the negative impact to gross profit. By 2019, while production volumes were marginally increased by 6%, losses were almost double than the previous year. The share of domestically produced LLDPE recorded its biggest decline in 2018 at 24% and 2019 at 21%.

During the POI, the domestic industry's share contracted as imports of LLDPE gained a significant proportion of the Philippine market.

### B.1. Domestic Sales

Table 5: Domestic Sales Volume and Value

Year	Sales Volume (MT)*	% Increase (Decrease)	Sales Value (Php Million)*	% Increase (Decrease)
2015	100	-	100	-
2016	124	23.74	117	17.09
2017	157	27.08	161	37.87
2018	82	(48.12)	94	(41.86)
2019	77	(5.71)	79	(15.95)

Source: Domestic Industry

\*Figures indexed due to confidentiality

The domestic sales volume increased from 2015 to 2017 by 24% and 27%, with a corresponding increase in sales value by 17% and 38%, respectively. However, domestic sales volume declined by 48% in 2018 and further by 6% in 2019. Also, sales value followed a decline of 42% in 2018 and further by 16% in 2019.

According to the domestic industry, they have been steadily losing substantial sales volume from its existing customers since 2017 due to an increase in the volume of importation of competing products that are being sold at much lower prices, even lower than the cost to produce and sell.

## B.2. Export Sales

Table 6: Export Sales Volume and Value

Year	Sales Volume (MT)*	% Increase (Decrease)	Sales Value (Php Million)*	% Increase (Decrease)
2015	100	-	100	-
2016	80	(19.95)	83	(16.94)
2017	120	50.00	130	56.91
2018	28	(76.79)	34	(74.21)
2019	76	174.27	79	134.36

Source: Domestic Industry

\*Figures indexed due to confidentiality

The industry's export sales followed a fluctuating trend with a decrease by 20% in 2016, increase by 50% in 2017, decrease by 77% in 2018 and increase by 174% in 2019. The sales value also followed a fluctuating trend, decreased by 17% in 2016, increased by 57% in 2017, decreased by 74% in 2018 and increased by 134% in 2019.

According to the domestic industry, they sell mainly through accredited distributors and trading partners but may also sell directly to plastic product manufacturers. Since 1998, they sold their products to over 30 countries worldwide.

## C. Production

Table 7: Total Production

Year	2015	2016	2017	2018	2019
Production (MT)*	100	102	138	67	71
% Increase (Decrease)	-	2.03	35.02	(51.05)	5.82

Source: Domestic Industry

\*Figures indexed due to confidentiality

The industry's production volume increased from 2015 to 2017 by 2% and 35% respectively. In 2018, it declined by 51% and increased by 6% in 2019. The highest production was recorded in 2017.

According to the domestic industry, the production volume had to be drastically reduced by 51% in 2018 owing to the negative impact to gross profit. By 2019, while production volume was marginally increased by 6%, losses were almost double than the previous year.

## D. Capacity Utilization

Table 8: Capacity Utilization

Year	Installed/Rated Capacity (MT)*	Actual Production (MT)*	Capacity Utilization Rate (%)	% Increase (Decrease)
2015	100	100	77.29	-
2016	100	107	83.01	7.40
2017	100	121	93.76	12.95
2018	100	100	77.32	(17.54)
2019	100	87	67.42	(12.80)

Source: Domestic Industry

\*Figures indexed due to confidentiality

The industry operates two (2) PE, both of which can produce HDPE and LLDPE. Since the capacity is not mutually exclusive for the two products, the table above represents combined data for both HDPE and LLDPE.

The capacity utilization rate exhibited an increasing trend from 2015 to 2017 by 7% and 13%, respectively. It began to decline in 2018 by 18% and 13% further in 2019. The highest capacity was registered in 2017 at 94%, almost at full capacity.

According to the domestic industry, they are currently expanding capacity (upcoming x x x kTA) in response to increasing local market volume demand but has been finding it difficult to compete for the past three (3) years as the import volumes have surged and continue to surge, affecting the operations and financial performance.

## E. Finished Goods Inventory

Table 9: Finished Goods Inventory

Year	Volume (MT)*	% Increase (Decrease)	Value (Php Million)*	% Increase (Decrease)
2015	100	-	100	-
2016	114	13.63	119	19.23
2017	64	(44.09)	99	(16.98)
2018	171	168.72	299	201.62
2019	119	(30.19)	152	(48.93)

Source: Domestic Industry

\*Figures indexed due to confidentiality

The finished goods inventory volume exhibited a fluctuating trend with an increase of 14% in 2016, decrease of 44% in 2017, an increase of 169% in 2018 and a decrease of 30% in 2019. Also, the finished goods inventory value increased by 19% in 2016, decreased by 17% in 2017, increased by 202% in 2018, and decreased by 49% in 2019.

According to the domestic industry, there has been a deliberate decision to cut production volumes in order to minimize losses in 2017, thus, remaining inventory year on year has been kept below x x x MT.

#### F. Cost to Produce

Table 10: Cost to Produce

Particulars	2015	2016	2017	2018	2019
Raw Materials*	94.3	93.8	94.6	93.7	93.2
Direct Labor*	0.6	0.7	0.2	0.2	0.2
Manufacturing Overhead*	5.1	5.4	5.2	6.1	6.6
Cost to Produce (per MT)*	100	100	100	100	100
% Increase (Decrease)**	-	(12.36)	12.85	12.13	(1.97)

Source: Domestic Industry

\*Figures in percentage to the cost to produce per MT

\*\*Computed based on the absolute figures of cost to produce per MT

The cost to produce per unit declined by 12% in 2016, increased by 13% in 2017 and 12% further in 2018, and slightly decreased by 2% in 2019.

According to the domestic industry, the primary raw material component for LLDPE is the olefin ethylene and comonomers butene and hexene which contributes to approximately 95% of the average overall raw material cost. The primary raw material ethylene is sourced mainly from the upstream naphtha cracker operated by JG Summit Olefins Corporation (JGSOC), a JGSPC's affiliate company. The secondary raw materials (catalysts and additives), the comonomers hexene-1 and butene-1 are 100% imported. A formula of conversion which specifically shows the breakdown of raw material usage and wastage per product grade from the Department of Science and Technology are secured for various LLDPE products.

## G. Profit and Loss

Table 11: Earnings Before Interest and Taxes

Particulars	2015	2016	2017	2018	2019	% Increase (Decrease) (2015 vs.2016)	% Increase (Decrease) (2016 vs.2017)	% Increase (Decrease) (2017 vs.2018)	% Increase (Decrease) (2018 vs.2019)
Sales*	100	117	161	94	79	17.09	37.87	(41.86)	(15.95)
Cost of Goods Sold*	100	118	164	100	89	18.04	38.95	(39.27)	(10.89)
Gross Profit*	100	84	73	(104)	(260)	(15.47)	(14.25)	(243.27)	150.85
Selling, General and Administrative Expenses*	100	140	76	50	20	40.85	(45.42)	(33.98)	(61.90)
Earnings Before Interests, Taxes, Depreciation and Amortization*	(100)	(318)	(91)	(541)	(909)	222.48	(71.77)	503.51	67.81
Depreciation and Amortization*	100	83	179	144	119	(16.24)	113.27	(20.44)	(16.39)
EBIT*	(100)	(157)	(151)	(269)	(367)	57.78	(4.00)	77.19	37.05

Source: Domestic Industry

\*Figures indexed due to confidentiality

The gross profit declined from 2015 to 2019 by 16%, 14%, 243% and 151%, respectively. It can be noted that the industry exhibited a negative gross profit since 2018 and almost tripled in 2019. The earnings before interests, taxes, depreciation and amortization (EBITDA) exhibited losses during the POI, the highest loss of which was recorded in 2019 which is almost ten times compared to the loss in the beginning of POI (2015). In addition, the earnings before interest and taxes (EBIT) exhibited losses since 2015. Losses Before Interest and Taxes worsen by 58% in 2016, improved by 4% in 2017 but worsen by 77% in 2018 and 37% further in 2019.

According to the domestic industry, the low prices of imported LLDPE have affected the gross profit on the domestic sales of locally produced LLDPE. In order to compete and defend its market share, the producer is forced to adopt a policy of import parity pricing, and as such is forced to sell its products at a price below its cost to produce and sell plus a reasonable margin to recover the investment.

In trying to maintain some market commitments, the local producer has tried to produce and sell LLDPE despite the poor financial returns that have started to be experienced even from the start-up in 2014 onwards.

## H. Return on Sales

Table 12: Return on Sales

Particulars	2015	2016	2017	2018	2019
Sales (Million)*	100	117	161	94	79
EBITDA (Million)*	(100)	(318)	(91)	(541)	(909)
Return on Sales	xxx	xxx	xxx	xxx	xxx
% Increase (Decrease)	-	(175.40)	79.53	(938.02)	(99.66)

Source: Domestic Industry

\*Figures indexed due to confidentiality

Negative return on sales (ROS) based on EBITDA reflected throughout the POI.

## I. Employment

Table 13: Employment

Year	Employees for Production*	% Increase (Decrease)	Salaries and Wages (Million)*	% Increase (Decrease)
2015	100	-	100	-
2016	115	15.05	97	(2.35)
2017	127	10.66	121	24.42
2018	141	10.91	129	5.88
2019	168	18.85	180	40.18

Source: Domestic Industry

\*Figures indexed due to confidentiality

The table above shows the direct labor personnel for the entire operation of both HDPE and LLDPE products as the operation is shared in the same facility where personnel can handle either products.

Employment throughout the POI increased yearly by 15%, 11%, 11% and 19% while salaries and wages declined by 2% in 2016 and continuously increased from 2017 to 2019 by 24%, 6% and 40%, respectively.

According to the domestic industry, despite the reduced production volume in the past two years, the industry continues to hire skilled workers, such as engineering, science or technical vocational graduates, thus, contributing to reducing the need for these skilled workers to find overseas employment. Despite weakening production, continuous hiring is important to ensure that there is sufficient buffer for the current operational requirements plus some pre-hiring of those to be trained for the upcoming new builds which will start operations in the last quarter of 2020.

## J. Productivity

Table 14: Productivity

Year	Production Volume (MT)	Employees for Production	Labor Productivity (MT/employees)	% Increase (Decrease)
2015	100	100	xxx	-
2016	107	115	xxx	(6.64)
2017	121	127	xxx	2.07
2018	100	141	xxx	(25.65)
2019	87	168	xxx	(26.64)

Source: Domestic Industry

\*Figures indexed due to confidentiality

The labor productivity decreased by 7% in 2016, increased slightly by 2% in 2017 but declined from 2018 to 2019 by 26% and further 27% due to the hiring of additional employees despite the reduced production.

## K. Price Effects

### 1. Price Undercutting

Table 15: Ex-Work Price of Domestic Product vs. Landed Cost of Imported Product for 2019 (P in MT)

Country	Wtd. Ave. Landed Cost (P / MT) (a)	% Share to Total Imports	Ex-work Price of Domestic Industry (P / MT) (b)	% Undercutting (b-a)/b*100 % Undercutting (b-a)/b*100
Major Sources:				
Singapore	xxx	30.22	xxx	(3.75)
Saudi Arabia	xxx	16.88		0.86
Qatar	xxx	15.67		2.49
Thailand	xxx	14.90		(3.53)
United States	xxx	9.63		(0.05)
Other Sources	xxx	12.70		2.52
<b>Wtd. Average</b>	<b>xxx</b>	<b>100.00</b>		<b>(0.81)</b>

Sources: Wtd. Ave. Landed Cost – BOC-SAD-IERD

Ex-Work Price – Domestic Industry

Price undercutting refers to the extent at which the imported product is consistently sold at a price below the domestic selling price of the like product.

Based on BOC-IEDs for 2019, the top five (5) major source countries of LLDPE were Singapore, Saudi Arabia, Qatar, Thailand and United States.

... from Saudi Arabia, Qatar and from other sources by



## 2. Price Suppression

Table 16: Average Ex-Work Price of Domestic Product vs. Cost of Production for 2019  
(P in MT)

Year	Ex-Work Price of Domestic Industry (P / MT)*	Cost of Production (P / MT) (B)*	Difference (P / MT) (A-B)*	% Price Suppression (A-B)/B*100
2015	100	100	(100)	(8.26)
2016	95	88	(2)	(0.22)
2017	104	99	(42)	(3.54)
2018	116	111	(56)	(4.15)
2019	104	109	(163)	(12.37)

Source: Domestic Industry

\*Figures indexed due to confidentiality

Price suppression refers to the extent by which the imported product prevents the domestic producer from increasing its selling price to a level that will allow full recovery of its cost of production

Price suppression was recorded during the POI, 8% in 2015, 0.22% in 2016, 4% in 2017, and in 2018 and 12% in 2019.

## 3. Price Depression

Table 17: Domestic Selling Price of Locally Manufactured LLDPE (P in MT)

Year	Ex-Work Price of Domestic Industry (P / MT)*	% Increase/ (Decrease)
2015	100	-
2016	95	(4.68)
2017	104	9.09
2018	116	11.42
2019	104	(10.37)

Source: Domestic Industry

\*Figures indexed due to confidentiality

Price depression reflects the extent at which the domestic producer decreases its selling price in order to compete with the imported product.

Price depression was recorded at 4.68% in 2016 and 10.37% in 2019.

#### **L. Other Adverse Effects**

- The negative financial status of the industry has made it increasingly difficult to get financing for its modernization, expansion and operational requirements.
- Cash flow has been affected because of the lower return on sales.
- The industry has been unable to increase the wages up to global standards because of the negative financial situation and it is more difficult to hold on and retain its more important technical personnel.

#### **M. Other Matters:**

##### **Update of JGSPC Operations Amidst the Covid19**

- Able to continue with manufacturing operations on skeletal force, following IATF guidelines on proper social distancing, enhanced health monitoring and safety procedures
- Ongoing expansion projects have completely stopped during the ECQ period but with GCQ in effect in Batangas since May 16, their BOI-registered projects including the PE project is set to resume construction, following DPWH guidelines and under LGU monitoring.
- Severely impacted by the COVID health pandemic due to lockdowns causing the shutdown of customers' plants, sudden dive in prices and drop in demand, not just locally but worldwide
- Significantly affected by recently enacted EO 113, effective for the duration of Bayanihan Heal as One Act, which adds 10% duty to naphtha and LPG that they use as raw materials to produce petrochemical products. Thus, making them even more uncompetitive compared to imported products who are not likewise being imposed with additional tariffs during this pandemic period by their respective governments.

## **VI.1 FINDINGS AND CONCLUSIONS**

### **A. Volume of Imports**

#### **A.1 In Absolute Terms**

- Import shipments of LLDPE increased by about 5% in 2016 and declined by the same rate in 2017.
- In 2018, there is an abrupt and notably sharp increase of 38% and further by 9% in 2019.
- In 2020 (Jan. to Apr.), imports were 29% of 2019 level.
- Singapore, Saudi Arabia, Thailand, Qatar, and the USA are the major suppliers during the POI.

#### **A.2 In Relative Terms**

- The share of imports to domestic production increased from 2015 to 2016 and declined to 75% in 2017.

- The ratio of increase of imports to domestic production significantly increased to 213% in 2018 and 220% in 2019.

## **B. Serious Injury**

### **B.1. Market Size**

- Increased by 12% and 7% in 2016 and 2017.
- Slightly declined by 1% in 2018. Improved by 6% in 2019 despite a 6% decline in domestic industry sales

### **B.2. Market Share**

- The share of imports of non-manufacturers (i.e importers, distributors, etc.) increased from a range of 54% to 78% while imports share of domestic industry recorded less than 1%.
- The share of domestic sales volume significantly declined from 46% in 2017 to 21% in 2019.

### **B.3. Domestic Sales Volume of Value**

- Domestic sales volume and value increased from 2015 to 2017 but declined from 2018 to 2019.

### **B.4. Export Sales Volume of Value**

- Export sales showed a fluctuating trend with a decrease of 20% in 2016, increase by 50% in 2017, decrease by 77% in 2018 and increase by 174% in 2019.
- The sales value also followed a fluctuating trend, decreased by 17% in 2016, increased by 57% in 2017, decreased by 74% in 2018 and increased by 134% in 2019.

### **B.5 Production**

#### **a. Total Production**

- Production volume increased from 2015 to 2017 by 2% and 35% respectively. In 2018, it declined by 51% and increased by 6% in 2019.

#### **b. Capacity Utilization**

- The capacity utilization rate increased from 2015 (77%) to 2017 (94%).
- It declined by 77% in 2018 and recorded its lowest in 2019 at 67%.

#### **c. Inventories**

- Inventories exhibited a fluctuating trend with an increase of 14% in 2016, a decrease of 44% in 2017, an increase of 169% in 2018 and a decrease of 30% in 2019.

**d. Cost to Produce**

- The cost to produce per unit declined by 12% in 2016, increased by 13% in 2017 and 12% further in 2018, and slightly decreased by 2% in 2019.

**B.5 Profitability**

**a. Profit and Losses**

- Throughout the POI, the industry exhibited losses in EBIT. EBIT exhibited losses since 2015 and worsen by 58% in 2016, improved by 4% in 2017 but worsened by 77% in 2018 and 37% further in 2019.

**b. Return on Sales**

- Negative return on sales based on EBITDA incurred throughout the POI.

**B.6 Employment and Salaries and Wages**

- Employment throughout the POI increased yearly by 15% in 2016, 11% in 2017 and 2018, and 19% in 2019.
- Salaries and wages declined by 2% in 2016 and continuously increased from 2017 to 2019 by 24%, 6% and 40%, respectively.

**B.7 Productivity**

- Labor productivity decreased in 2016 by 7%, slightly improved in 2017 by 2%
- Declined from 2018 to 2019 by 26% and 27%, respectively, due to a decrease in production but increase in employment

**B.8 Prices**

**a. Price Undercutting**

- Price undercutting was recorded from Saudi Arabia, Qatar and other sources by approximately 1% and 3%, respectively.

**b. Price Depression**

- Price depression was recorded at 5% in 2016 and 11% in 2019.

**c. Price Suppression**

- Price suppression was recorded during the POI, i.e. 8% in 2015, 0.22% in 2016, 4% in 2017, and 2018 and 12% in 2019.

## VII. CAUSATION

The above evidence shows that serious injury to the domestic industry was caused by the increased imports based on the following:

- A significant increase in the volume of imported LLDPE in 2016 (5%), 2018 (38%) and 2019 (9%) preceded the serious injury to the industry. There was an abrupt and notably sharp increase in the volume of imports both in absolute terms and relative to domestic production from 2015 to 2019. The industry suffered a loss of market share, declining domestic sales, production, utilization rate, reduction in labor productivity, cost of production, incurred losses and increase inventory.
- The condition of competition showed that the market share of domestic products decreased during the POI from 46% in 2017 to 21% in 2019, as the share of imports in the domestic market significantly increased.

## VIII. ADJUSTMENT PLAN

The domestic industry submitted its adjustment plan to undertake improvement to increase production capacity while also improving efficiency and cost of production. JGSPC is currently undertaking or plans to undertake the following projects and initiatives to help optimize existing assets, ensure the viability of upcoming investments, and improve competitiveness versus products for which safeguards are being sought.

### A. Improve Economies of Scale and Competitive Advantage

#### 1. New 250,000 MTA PE Plant

- Currently, ongoing construction is an additional 250 kTA PE plant that will be able to produce both HDPE and LLDPE, using US-based Chevron Phillips MarTECH ADL™ PE production technology. This capacity, in addition to currently existing 320 kTA, will bring JGSPC's combined PE production capacity to 570 kTA, in an effort to match projected local market demand in the short to medium term. As the petrochemical complex itself already exists and has many of its utilities outside battery limits available or requiring minimal modification to accommodate increase in capacity, the production economies of scale are improved as well as overall costs to produce and sell.
- In addition, use of the MarTech ADL™ PE production technology will allow JGSPC to produce higher value PE products, such as bimodals and metallocenes, currently not produces its existing PE plants, enabling JGSPC to cover a wider range of HDPE applications currently served by imported products, and increase its domestic market share.

Status	: Construction Ongoing
Date Available	: 4Q 2020

## B. Improve on Costs

### 1. Power – 100 MW Coal-Fired Power Plant

- The petrochemical complex where the HDPE polymer manufacturing plants are located currently source its power requirements primarily from its diesel generators and secondarily from the grid. With power costs making up most of the variable cost, it is imperative to find ways to improve on both reducing the power costs and reducing power consumption. To this end, JGSPC plans to put up a 100 MW coal-fired power plant to provide for its own power requirements, using the latest Circulating Fluidized Bed technology for cost efficiency and even reduced emissions as opposed to current diesel or bunker-fired generation.

Status : Under evaluation

Date Available : 2023

### 2. Raw Material Cost – Expansion of Cracker (source of ethylene)

- JGSPC's cracking facility is currently also undergoing expansion, again in an effort to improve economies of scale and to help build up capacity to match projected local market demand in the short to medium term. With the 50% increase in cracking capacity, larger bulk shipments of the feedstock naphtha and LPG are made possible, which in turn will translate into lower feedstock costs per MT for the production of ethylene, which is the primary raw material for HDPE.

Status : Ongoing Commissioning

Date Available : 1Q 2020

### 3. Raw Material Costs – Additives and Catalyst Savings

- With the new PE project, JGSPC invested in a catalyst activator which will allow JGSPC to activate its catalyst onsite rather than offsite (abroad), including those catalysts used for its existing plants, thereby helping to reduce on catalyst activation costs.

Status : Construction Ongoing

Date Available : 4Q 2020

- JGSPC also continuously reviews its catalysts and additives portfolio in an effort to find suitable alternative additives at lower cost, as well as higher productivity/efficiency alternatives for its catalysts.

Status : Ongoing

## C. Improve Plant Reliability

### 1. Benchmarking Study on Reliability and Maintenance Performance

- JGSPC is undertaking a maintenance benchmarking study to analyze the primary factors impacting plant reliability and maintenance effectiveness, thereby helping identify key inefficiencies, to enable the maintenance team to focus efforts on specific and measurable improvements and leverage resources to where most needed.

Status : Ongoing

Date Available : 2Q 2020

## D. Improve Production Efficiency and Output

### 1. Purchase of Operator Training Simulator (OTS)

- For the new PE plant, JGSPC has procured an Operator Training Simulator which is a system of networked computers programmed to mimic the actual plant processes and associated control systems. The plant model running in the OTS server is built using the same engineering data that is used in the actual plant, using graphics that are identical to those used in actual control systems. With simulated training, trainees can get operational experience in an environment that closely resembles the actual plan without posing any risk to the actual plant. Thereby helping minimize incidence of plant upsets caused by human-related errors.

Status : Ongoing purchase of software  
Date Available : 2H 2020

### 2. Advanced Process Control (APC) System

- Advanced Process Control (APC) is a technology that uses computers to predict the behavior of the plant and manage the changes that continuously happen in the plant. It attempts to mimic the actions of the most efficient and knowledgeable human control operator, except it works untiringly 24/7, 365 days in a year.

JGSPC uses APC modules to help improve plant control stability, feed, and production maximization, reduce energy consumption, and reduce variability in product quality

Upgrade for Existing PE Plants:

Status : Completed  
Date Available : 2020

New APC for New PE Plant:

Status : Data gathering to be initiated once new PE plant is operational  
Date Available : Targeting 2024

## IX. THE WORLD TRADE ORGANIZATION AGREEMENT ON SAFEGUARDS

Article XIX (Emergency Action on Imports of Particular Products) of the General Agreement on Tariffs and Trade (GATT) 1994 provides that: *"If, as a result of unforeseen developments and of the effect of the obligations incurred by a contracting party under this Agreement, including tariff concessions, any product is being imported into the territory of that contracting party in such increased quantities and under such conditions as to cause or threaten serious injury to domestic producers in that territory of like or directly competitive products the contracting party shall be free, in respect of such product, and to the extent and for such time as may be necessary to prevent or remedy such injury, to suspend the obligation in whole or in part or to withdraw or modify the concession."*

The WTO Appellate Body in **Argentina– Footwear and Korea – Certain Dairy Products** established that safeguard measures may be applied only when the prerequisites of Article XIX of GATT 1994 and the conditions of the Agreement on Safeguards (both Multilateral Trade Agreements and as such are integral parts of the WTO Agreement) are clearly demonstrated.

The investigation is governed by RA 8800, the Safeguard Measures Act, and the terms and conditions of the Agreement on Safeguards.

#### **IX.a. Unforeseen Development**

- US and Middle East petrochemical plants are heavily cost-advantaged versus Asian petrochemical plants
- The US shale gas boom has led to an oversupply of PE, which is primarily intended for export and is expected to flood Asian markets.
- The US-China trade war has caused the displacement of usual trade flows, giving rise to increased exports into the Philippines
- Houston — Tariffs have sharply reduced exports of two grades of US polyethylene amid the ongoing US-China trade dispute, according to data from the US International Trade Commission.

As new US startups have brought more high density and linear low-density polyethylene production on line, flows into China, the largest global demand center, have retreated since China imposed 25% tariffs on those grades in August last year. Those tariffs, like the rest China has imposed on the US products, were in response to tariffs the US first imposed on Chinese products.

USITC data showed that during the first nine months of 2019, China received 121,255 mt of US HDPE, down 57% from the January-September period of 2018.

Over the same period in 2019, US LLDPE flows fell 37% on the year to 54,747 mt.

However, flows of US low-density PE to China more than doubled to 204,199 mt from 75,911 mt, the data showed. China did not impose tariffs on LDPE last year.

US producers have started up 72% of 6.4 million mt/year of new PE capacity coming online from 2017-2019 in the first wave of new petrochemical infrastructure to be built to exploit cheap ethane unearthed by the US natural gas shale boom. The remaining 1.77 million mt/year is slated to start up by year-end, barring any delays.

The second and potentially third waves are expected to bring another 7.27 million mt of new PE capacity come online after 2020. HDPE and LLDPE make up more than 90% of the known new capacity either in operation, under construction or planned, while LDPE makes up about 6.5%.

Source: <https://www.spglobal.com/platts/en/market-insights/latest-news/petrochemicals/111819-us-hdpe-lldpe-exports-to-china-down-sharply-amid-tariffs>, 18 Nov 2019



- The US has seen a sharp decline in its HDPE and LLDPE exports to China because of trade-war tariffs that total 30% on each polymer. US producers have adjusted to the loss of China market share by raising exports to Europe, Turkey, Malaysia, and most notably to Vietnam, where the US is now selling more HDPE and LLDPE than in China.

Source: <https://www.icis.com/asian-chemical-connections/2019/10/surge-in-us-polyethylene-exports-occurs-as-china-growth-slows-asian-margins-turn-negative/> 16th October 2019

- What we do know, though, is that more US ethylene is heading to Asia from the recently started up Enterprise Navigator terminal. A total of around 150,000 tonnes of US cargoes are likely to move to Asia for loading between the end of May and July – although there could be some delays due to logistics.

Rising Asian ethylene supply could exert downward pressure on the region's PE market. US PE exports may also continue to rise in May and June following their big increases in January-April.

During the first months of 2020, US high-density PE exports rose to 1.3m tonnes from 1.1m tonnes, a 26% year-on-year increase when you look at the exact numbers. Linear-low density PE (LLDPE) exports were 35% higher, rising to 1.8m tonnes from 1.4m tonnes. But LLDPE exports declined by 7% to 409,211 tonnes from last year's 439,874 tonnes.

The data shows US January-April exports to Asia were more or less flat as a decline in shipments to southeast Asia (SE Asia) was replaced by a rise in cargoes to China. This was the result of the removal of the 25% additional tariffs on US HDPE and LLDPE, imposed as part of the trade war (last year, the US had shipped more to SE Asia as SE Asia replaced lost US volumes in China).

Source: By John Richardson on 25th June 2020 in Business, China, Company Strategy, Economics, Europe, Indonesia, Middle East, Naphtha & other feedstocks, Oil & Gas, Olefins, Philippines, Polyolefins, Singapore, South Korea, Thailand, US (icis.com)

## **IX.b. Notification Requirement**

Article 12.1 of the WTO Agreement on safeguards states that a Member shall immediately notify the Committee on Safeguards upon:

- (a) initiating an investigatory process relating to serious injury or threat thereof and the reasons for it;

### **IX.c. Articles 11 of the ASEAN Trade in Goods Agreement (ATIGA)**

Articles 11 of the ATIGA provide provisions on the Notification as follows:

#### **"Article 11 - Notification Procedures**

1. *Unless otherwise provided in this Agreement, Member States shall notify any action or measure that they intend to take:*
  - (a) *which may nullify or impair any benefit to the other Member States, directly or indirectly under this Agreement; or*
  - (b) *when the action or measure may impede the attainment of any objective of this Agreement.*
2. *x x x*
3. *A Member State shall make a notification to Senior Economic Officials Meeting (SEOM) and the ASEAN Secretariat before effecting such action or measure referred to in paragraph 1 of this Article. Unless otherwise provided in this Agreement, notification shall be made at least sixty (60) days before such an action or measure is to take effect. A Member State proposing to apply an action or measure shall provide adequate opportunity for prior discussion with those Member States having an interest in the action or measure concerned."*

### **X. RECOMMENDATIONS**


Based on the above findings, there are indications that increased imports of LLDPE pellets and granules are the substantial cause of serious injury to the domestic industry in terms of declining domestic sales, production, utilization rate, reduction in labor productivity, incurred losses, suppression, depression and increase inventory.

Wherefore, premises considered, the Department, finds *prima facie* evidence to initiate and conduct a preliminary safeguards investigation to determine whether LLDPE pellets and granules are being imported into the Philippines in increased quantities and is causing serious injury to the domestic industry.

Let the notice of initiation of a preliminary safeguards investigation be published in two (2) newspapers of general circulation and individual notices be sent to all interested parties including the country members concerned.

SO ORDERED.

28 August 2020

  
**RAMON M. LOPEZ**  
Secretary

## Annex A

## LIST OF IMPORTERS OF 3901

## I. IMPORTERS OF PETROCHEMICALS

IMPORTER		IMPORTER	
1.	Alpha Supreme Corp	44.	Innovaplas Packaging Corporation
2.	Apollo Bag Industrial Corporation	45.	Integrated Logistics Phils Inc
3.	Asian Plastic Center	46.	Integrated Packaging Corporation
4.	Astrobag Manufacturing Corporation	47.	Jason Manufacturing Philippines Corp.
5.	Basic Packaging Corporation	48.	Jgks Universal Plastic Corporation
6.	Bestank Manufacturing Corporation	49.	Kang Nam Packaging House Inc.
7.	Bonflex Packaging Corp.	50.	Kilotrade Marketing
8.	Bonpack Corporation	51.	Lapanday Foods Corporation
9.	Calypso Plastic Center Co.	52.	Lewiston Concept Industrial
10.	Cangco Dotingco Enterprises	53.	Licton Industrial Corp.
11.	Cebu Sentra Plastics Corporation	54.	Liquid Packaging Corporation
12.	Cebu Sherilin Trading Corporation	55.	Lucky Sapphire Trading
13.	Ceed Forming Corporation	56.	Macondray Plastics Products Inc
14.	Centreum Corporation	57.	Mandaue Libertad Commercial & Packaging
15.	Chemplas Commercial Trading Inc	58.	Marulas Industrial Corporation
16.	Citiplas Plastic Servicing Center	59.	Masterbatch Philippines Inc
17.	Cofta Mouldings Corporation	60.	Mgm Food & Commodities Corp.
18.	CTN Pacific Packaging Corp.	61.	Mhylink Trading
19.	Cygnus Industries Inc.	62.	Michem Marketing Inc.
20.	D & L Polymer And Colours Inc.	63.	Nikkoplas Inc.
21.	Davao Packaging Corporation	64.	Omnipack Industrial Corporation
22.	Delfingen Ph Filipinas Inc.	65.	Philplastic And Polymers Inc.
23.	Djdy Marketing	66.	Plascorp Packaging Incorporated
24.	Dole Philippines Inc	67.	Plastop Asia Inc.
25.	Dunhill Plastic Industries Inc.	68.	Polymer Link (Phils.) Inc.
26.	Ednarro Trading	69.	Positive Faxfair Trading
27.	Esta Fine Color Corporation	70.	Powerflex Packaging Corporation
28.	F.A.S. Development Corporation	71.	Ppmc Packaging Mfg Corporation
29.	Falcon Yam Manufacturing Corp.	72.	Prima Plastic Manufacturing Corp.
30.	First In Colours Incorporated	73.	Rim 21 Corp
31.	First Oriental Packaging Inc	74.	Rpmc Plastics Phils. Inc.
32.	Flexible Packaging Products Corp.	75.	Sammito Packaging Corporation
33.	Flexo Manufacturing Corporation	76.	San Miguel Yamamura Packaging
34.	Gilvan Packaging Corporation	77.	Shrinkpack Phils. Corp.
35.	Goldenfortune Enterprises Co	78.	Sigma Packaging Corp
36.	Goldstar Polymer Trading Corp.	79.	Solid Form Enterprises
37.	Grand Arraier Trading	80.	Solidpoint Marketing
38.	Grand Majestic Mfg. Corp.	81.	Startrade Marketing
39.	Gt Industrial Development Inc	82.	Styrotech Corporation
40.	Hantex International Corp.	83.	Sumifru (Philippines) Corporation
41.	Hantex Trading Co. Inc	84.	Synergy Sales International Corp
42.	Inca Philippines Inc.	85.	Tradeton Corporation
43.	Incon Industrial Corporation	86.	Trans World Trading Co.Inc.

*Public Version*

87.	Treasure Island Industrial Corp	93.	Weida Philippines Inc.
88.	Tri Star Plastic Inc	94.	Woodstrall And Sons Incorporated
89.	Tri-Pack Phils Corporation	95.	Wpc Desu Tenso Trading
90.	Unimagna Industries Inc.	96.	Yjc International Corporation
91.	Universal Robina Corporation	97.	Zest-O Corporation
92.	Uright Resources Corporation		

## Annex B

## LIST OF EXPORTERS OF 3901

## II. EXPORTERS OF PETROCHEMICALS

	EXPORTER	COUNTRY
1.	ABU DHABI POLYMERS CO. LTD.	United Arab Emirates
2.	ACTEGA DS GMBH	Germany
3.	ACUMEN ENGINEERING PTE LTD	Thailand
4.	BASELL SALES & MARKETING CO., B. V.	Netherlands
5.	BOREALIS AG	Austria
6.	BOROUGE PTE LTD.	United Arab Emirates
7.	BOROUGE PTE LTD.	Singapore
8.	BRASKEM S.A.	Brazil
9.	CHEVRON PHILLIPS SINGAPORE CHEMICALS PTE. LTD.	Singapore
10.	CHEVRON PHILLIPS CHEMICALS	United States
11.	CP POWDERS SDN BHD	Malaysia
12.	DEGUCHI CO., LTD.	Japan
13.	DOW CHEMICAL	Hong Kong
14.	DOW CHEMICAL	Malaysia
15.	DOW CHEMICAL	Netherlands
16.	DOW CHEMICAL	Saudi Arabia
17.	DOW CHEMICAL	Thailand
18.	DOW CHEMICAL	United States
19.	DOW CHEMICAL CANADA ULC	Canada
20.	DOW CHEMICAL COMPANY	United States
21.	DOW CHEMICAL PACIFIC (SINGAPORE) PTE LTD	Singapore
22.	DOW CHEMICAL PACIFIC LTD	Malaysia
23.	DOW EUROPE GMBH	Belgium
24.	DU PONT CHINA LTD DuPont Kabushiki Kaisha	Japan
25.	EASTERN PETROCHEMICAL COMPANY LTD (SHARQ)	Saudi Arabia
26.	EQUATE PETROCHEMICAL CO K.S.C.C.	Kuwait
27.	EXXONMOBIL CHEMICAL ASIA PACIFIC	Singapore
28.	EXXONMOBIL CHEMICAL ASIA PACIFIC	Thailand
29.	FAR EASTERN NEW CENTURY CORP.	Chinese Taipei
30.	FORMOSA CHEMICALS & FIBRE CORP	Chinese Taipei
31.	FORMOSA PLASTIC CORPORATION	Chinese Taipei
33.	FSP AUSTRALIA	Australia
34.	GC MARKETING SOLUTION	Thailand
35.	HANWHA CHEMICAL CORPORATION	Republic of Korea
36.	HANWHA TOTAL PETROCHEMICAL CO. LTD	Republic of Korea
37.	ITOCHU PLASTICS PTE., LTD.	Singapore
38.	ITOCHU PLASTICS PTE., LTD.	Viet Nam
39.	JFE SHOJI TRADE MATECH INC.	Japan
40.	JIANGYIN XINGYU NEW MATERIAL CO LTD	PROC
41.	KUM YANG CO LTD	Republic of Korea
42.	LOTTE CHEMICAL CORPORATION	Republic of Korea
43.	LOTTE CHEMICAL TITAN CORP SDN BHD	Malaysia
44.	LOTTE CHEMICAL TITAN TRADING SDN BH	Malaysia
45.	MACRO INTERNATIONAL CORPORATION	Republic of Korea
46.	MITSUI & CO. LTD.	Japan
47.	MITSUI & CO. (ASIA PACIFIC) PTE. LTD.	Japan
48.	MITSUI & CO. (ASIA PACIFIC) PTE. LTD.	Singapore
49.	MTS LOGISTICS, INC.	United States

50.	NEW CHEMICAL TRADING CO., LTD.	Japan
51.	NOVA CHEMICALS (INTERNATIONAL) S.A.	Canada
52.	NOVA CHEMICALS (INTERNATIONAL) S.A.	Switzerland
53.	OMON GROUP CO., LTD	PROC
54.	OPEC PLASTICS JOINT STOCK CO.	Viet Nam
55.	OPUS PETROCHEMICAL INC.	United States
56.	P.T. LOTTE CHEMICAL TITAN	Indonesia
57.	PEGASUS POLYMERS PTE LTD	Singapore
58.	PETRONAS CHEMICALS MARKETING SDN BH	Malaysia
59.	POLYMER LINK (PHILS.) INC.	Malaysia
60.	POLYMER LINK SDN BHD	Malaysia
61.	PRIME EVOLVE SINGAPORE PTE LTD	Singapore
62.	PRIME POLYMER CO., LTD.	Japan
63.	PT CHANDRA ASRI PETROCHEMICAL TBK.	Indonesia
64.	PTT POLYMER MARKETING CO., LTD	Thailand
65.	QATAR CHEMICAL AND PETROCHEMICAL MARKETING AND DISTRIBUTION COMPANY	Qatar
66.	RABIGH REFINING & PETROCHEMICAL CO.	Saudi Arabia
67.	RAPID COAT DIVISION	India
68.	RAVAGO GLOBAL TRADING	United States
69.	RAVAGO HONG KONG LIMITED	Hong Kong
70.	REVOLVE MATRIX POLYMERS MALAYSIA	Malaysia
71.	SABIC ASIA PACIFIC PTE LTD	Singapore
72.	SASOL CHEMICALS	South Africa
73.	SCG ICO POLYMERS CO.,LTD	Thailand
74.	SIAM POLYETHYLENE CO., LTD	Thailand
75.	SIAM SYNTHETIC LATEX CO.,LTD	Thailand
76.	SK GLOBAL CHEMICAL CO., LTD.	Republic of Korea
77.	STYROLUTION KOREA LTD.	Republic of Korea
78.	SUMITOMO CHEMICAL ASIA PTE LTD.	Singapore
79.	THE DOW CHEMICAL COMPANY	United States
80.	TOTAL PETROCHEMICALS FRANCE QATAR B	Qatar
81.	TOYO MORTON LTD	Thailand
82.	TOYOTA TSUSHO ASIA PACIFIC PTE.LTD.	Singapore
83.	TRICON DRY CHEMICALS LLC	PROC
84.	TRICON DRY CHEMICALS LLC	United States
85.	USI CORPORATION	Chinese Taipei
86.	VINH HAO TRADE INVESTMENT CO LTD	Viet Nam
87.	VINMAR OVERSEAS LTD	United States
88.	WEIDA INTEGRATED INDUSTRIES SDN BHD	Malaysia
89.	WING LEE GROUP INDUSTRIES CO	Hong Kong

**NON-CONFIDENTIAL VERSION**  
**APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY**  
**CONFIDENTIAL**

**1 THE APPLICANT/S**

Please give details for each of the Philippine producer/s by or on whose behalf this application is made.

- 1.1 Name: JG Summit Petrochemical Corporation
- 1.2 Address:
- Head Office: 10F-11F, Robinsons Cyberscape Gamma Bldg.,  
Topaz and Ruby Roads, Ortigas Center,  
Brgy. San Antonio, Pasig City, Philippines 1605
- Plant: Barangay Simlong, Batangas City, Philippines 4200
- 1.3 Phone: (632) 8 230-5000 / (632) 8 397-3200
- 1.4 Fax: (632) 8 395-2674
- E-mail address: Rhoda.Balilla@jgspetrochem.com  
Veron.Munar@jgspetrochem.com
- 1.5 Names and titles of contact people for this case.
- |                          |   |
|--------------------------|---|
| Atty. Rhoda M. Balilla   | Legal Counsel   |
| Maria Veron M. Marasigan | Manager, Business Development,<br>Research and Communications |
- 1.6 Ownership details. Submit articles of incorporation; SEC registration etc.

See attached:

- a. SEC Registration (Appendix 1)
- b. Articles of Incorporation (Appendix 2)
- c. General Information Sheet (Appendix 3)

Provide broad details of shareholding e.g. \_\_\_\_ privately owned, or  
\_\_\_\_ Corp., \_\_\_\_ Corp.

JGSPC is 100% owned by JG Summit Holdings, Inc. (JGSHI), one of the country's largest and most diversified conglomerates, with investments in various sectors such as food and agribusiness, air transportation, property development, banking, telecommunications, power and petrochemicals. JGSHI has been publicly listed since 1993.

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

**1.7 Details of company accounting year.**

Please find attached audited financial statements (Appendix 4) for the ff. accounting periods:

Fiscal Year 2015	Oct 2014 – Sept 2015	(Appendix 4A)
Short Period 2015	Oct 2015 – Dec 2015	(Appendix 4B)
Calendar Year 2016	Jan – Dec 2016	(Appendix 4C)
Calendar Year 2017	Jan – Dec 2017	(Appendix 4D)
Calendar Year 2018	Jan – Dec 2018	(Appendix 4E)

For this safeguards application, information for Calendar Year 2019, covering the period January 2019 to December 2019, was also provided. The CY 2019 audited financial statement will be submitted as soon as available.

**1.8 Briefly list all products manufactured and/or sold.**  
(Continue on separate sheet if needed.)

- JGSPC markets its resin products under the brand name EVALENE®.
- **EVALENE® High Density Polyethylene (HDPE)**
  - EVALENE® Linear Low Density Polyethylene (LLDPE)
  - EVALENE® Polypropylene (PP)

For a complete list of the existing Unipol™-based product grade slate, please refer to attached brochure (Appendix 5).

JGSPC seeks safeguards measures for competing imported PE products, regardless of source country.

**This document is the application for HDPE.**

**1.9 Describe your distribution channels**

For local and indirect export sales, JGSPC primarily sells its HDPE resins directly to over 200 local plastic products manufacturers, and secondarily through distributors.

For export sales, JGSPC mainly sells through accredited distributors and trading partners, but may also sell directly to plastics products manufacturers. Since 1998, JGSPC has sold its products to over 30 countries worldwide.



- 1.10 Describe your production process. Provide flowchart of manufacturing operations.

**UNIPOL™ PE Production Process (existing 320 kTA plant)**

UNIPOL™ PE gas phase technology is one of the world's most widely used PE technology, having more than 165 licensed reactor lines in 28 countries, with total capacity of more than 48 million MTA. Below is a brief description of the UNIPOL™ PE production process.

**Purification:**

- The Purification Area is designed to remove impurities in the raw materials, ethylene, butene, hexane, hexene, nitrogen, and hydrogen. These impurities include acetylenes, conjugated dienes, halogens, oxygenated and sulfur compounds. These impurities may cause the production of undesired by-products in the reaction or simply cause the reaction to stop.

**Reaction:**

- Resin is produced in a fluidized bed reactor by the polymerization of ethylene. Depending on the grade being produced, hexene or butene is added into the system to obtain desired polymer density. Catalyst is used to increase the reaction rate. An induced condensing agent, hexane, is added into the system to help cool the reactor. Nitrogen gas is used to pressure up the reactor and maintain gas compositions. Products are discharged into a Product Discharge System and are conveyed to the resin degassing section. The production rate for each of the two reactors is about 20 metric tons (MT) per hour or 160,000 MT per annum.

**Resin Degassing:**

- After the reaction, the resin is conveyed towards the product purge bin. In this vessel, resin is separated from dissolved hydrocarbons by a steady flow of nitrogen countercurrent to the product stream. Residence time, which indicates the amount of hydrocarbons purged from the resin, is controlled by the resin level inside the bin.

**Vent Recovery:**

- The vent recovery system is designed to recover gases purged from the resin degassing section. This improves the overall efficiency of the process and at the same time minimizes the amount of gas vented off to the atmosphere. The recovered gases are used to convey the products from the reaction section to the resin degassing.

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

**Additive Addition and Extrusion:**

- The resin from the product purge bin then goes to the extrusion area where additives that improve the physical property of the polymer are added. These mechanical properties include but are not limited to the tensile strength, elasticity and overall processability of the product. Moreover, additives to improve product handling are added such as anti-static and anti-block. Anti-oxidants, which help retard polymer degradation, are also added to extend the life of the polymer. The additives and resin are melted and mixed in the extruder. After which, they are pelletized for easy handling and storage. The pellets are then conveyed to the silos at an average production rate of 12.5 MT per hour.

**Product Silos:**

- Pelletized resin are then conveyed to the product silos in preparation to bagging. The silos serve as temporary storage for the pellets with a capacity of 200 tons per silo.

Please see attached process flow diagram of JGSPC for the UNIPOL™ PE Process (Appendix 6A).

**Chevron Phillips MarTECH ADL™ PE Production Process  
(upcoming 250 kTA plant)**

Chevron Phillips's loop slurry process technology was first introduced in 1961 and is today one of the world leaders in PE production and licensing, with more than 80 licensed plants in 20 countries. Below is a brief description of the Chevron Phillips MarTECH ADL™ PE production process.

**Purification:**

- The feedstocks ethylene, hexene, isobutane and hydrogen go through a purification process to remove reaction poisons such as water, oxygen, carbon monoxide, carbon dioxide and organic compounds containing sulfur, oxygen or halogens before they are charged into the reactor.

**Reaction:**

- Monomer ethylene, catalyst, co-monomer and co-catalyst are fed into the first slurry loop reactor where polymer particles grow while being suspended and circulated in a hydrocarbon diluent, isobutane. The temperature of the slurry in the loop is kept uniform by a circulating pump. The heat of reaction is removed by an external cooling water heat exchanger.
- In bimodal operation, the first reactor produces the high molecular weight polymer. The polymer is then transferred to the second reactor by a pipe transfer system. In the second reactor, the low molecular weight polymer is produced by introducing a high

**NON-CONFIDENTIAL VERSION**  
**APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY**  
**CONFIDENTIAL**

concentration of hydrogen. The catalysts have their own dedicated feeding system into the reactor.

**Vent Recovery:**

- Polymer from the 2nd reactor is heated and the hydrocarbons are flashed in a flash chamber. The flashed gases are sent to the recovery system while resin is dropped down to a purge column. The purge column removes the remaining hydrocarbons in the polymer.
- The flashed gases are separated in a series of columns to recover isobutane, 1-hexene and nitrogen which are recycled back to the reactor and conveying system.

**Extrusion and Additive Addition**

- The powder from the polymerization section is fed into the additives and pelletizing unit where it is blended with additives and sent to the extruder feed screw for extrusion. The additives and resins are then mixed and melted by means of two counter-rotating non-intermeshing screws. For easy handling and storage, molten polymer is then made to pass through a die plate and then cut to produce pellets. The pellets are then extruded under water via the pelletizer. These are then sent to the pellet drier for drying and conveyed to the pellet blenders where the pellets are homogenized before being conveyed to the packaging section where the products are bagged and stored.

Please see attached process flow diagram of JGSPC for the Chevron Phillips MarTECH ADL™ PE Process (Appendix 6B).

**2. OTHER PHILIPPINE PRODUCER/S**

Please give details for any other Philippine producer/s.

NPC Alliance Corporation (NPCAC) is the only other PE producer in the Philippines. Details shown below are based on NPCAC's website - <https://www.npcac.com.ph/>.

2.1	Name	NPC Alliance Corporation
2.2	Address	
	Head Office:	19th Floor Antel 2000 Corporate Center, 121 Valero St., Salcedo Village Makati City, Philippines 1226
	Plant:	PAFC Industrial Park, Barangay Batangas II Mariveles, Bataan, Philippines 2105

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

2.3 Phone +632 819 0883  
2.4 Fax +632 819 0884  
E-mail address info@npcac.com.ph

2.5 Briefly, list all products manufactured and/or sold.

NPCAC's 250 kTA plant, which started operations in 2001, uses INEOS's Innovene™ Technology. While the technology is capable of producing both HDPE and LLDPE, NPCAC has mostly produced HDPE grades in the past. Exact product grades they produce however is no longer viewable in their website.

NPCAC reportedly has been shut down indefinitely and based on publicly available data from the Bureau of Import Statistics, their last recorded importation of ethylene, the primary raw material for HDPE, was in May 2015.

**2a. SUMMARY OF PHILIPPINE PRODUCERS**

Total Philippine Domestic Production of Like or Directly Competitive Products for the Past Five (5) Years

(During the period 2014/10/01 to 2019/12/31)

The period is the most recent representative period immediately preceding the date of herein protest.

Domestic production of like or directly competitive products by those Philippine producers who have, in writing, supported the Application

**Figure 1. Production of Philippine Producers Supporting this Application**

Producer	Total A Quantity (in MT)
JGSPC	
Total HDPE	

*\*Combined FY 2015 (Oct 2014 – Sept 2015) and SP 2015 (Oct 2015 – Dec 2015) volumes*

Domestic production of like or directly competitive products by other Philippine producers

**Figure 2. Production of Other Philippine Producers**

Producer	Total B Quantity (in MT)
NPCAC	
Total HDPE	

Total domestic production of like or directly competitive products by Philippine producers

**Figure 3. Total Domestic Production of Philippine Producers**

Total Domestic Production (i.e. Total A + Total B )	Total C Quantity (in MT)
Total A as % of Total C = <b>97%</b>	
Total HDPE	

Total domestic production (i.e. Total A + Total B ) Total C

Only JGSPC is filing for a safeguards case and only JGSPC production volumes are known with certainty. We have provided herein an estimation of NPCAC's production volumes using the typical approximate 1:1 ratio of PE production output versus ethylene raw material input. Their last recorded raw material ethylene importation, as per published imports reports from BIS, was in May 2015.

Please see attached source information on NPCAC's ethylene imports (Appendix 7).

### 3 THE PRODUCT

- 3.1 Please describe the imported product.  
(Submits samples (if possible), brochures, catalogues and specifications.)

High Density Polyethylene (HDPE) is a type of polyethylene resin with densities from 941 kg/cubic meter or greater, and primarily sold as translucent white pellets or in granular form. HDPE is made by polymerizing ethylene monomer using organometallic catalysts. It is also called a polyolefin since its

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

main monomer ethylene is an olefin, and it also may be copolymerized with other linear alpha olefin copolymers such as 1-butene or 1-hexene.

HDPE is used for a broad range of applications such as extrusion for blown film, sheets, straps, pipe and filament, as well as injection and blow molding applications for packaging of consumer, household and industrial products. HDPE manufacturers typically produce several grades of varying comonomer content, specifications such as melt index and density, additive packages, to suit the abovementioned applications.

HDPE is imported into the local market under the HS and AHTN tariff heading 3901.20.00, as "Polyethylene having a specific gravity of 0.94 or more".

Please find attached data sheets of some of the top HDPE resins being imported into the Philippines, that are used for applications currently also being served by existing local products (Appendix 8).

- 3.4 Please provide the tariff classification, statistical code and tariff duty for the imported product. If included in a preferential agreement, state the nature of the requirement and margin(s) of preference granted. The Tariff Commission, Bureau of Customs, customs brokers or consultants can provide the correct tariff classifications.

Within the ASEAN region, trade of all resins including HDPE is at 0% tariff duty. For resins imported from Most Favored Nation (MFN) sources (e.g. non-ASEAN), tariff duty for HDPE, which is categorized under ASEAN Harmonized Tariff Nomenclature (AHTN) Code 3901.20.00, is at 10%. In addition, various trade agreements enacted between ASEAN or the Philippines and other free trade partner countries also have corresponding tariff schedules for HDPE.

Please see attached excerpt from the latest AHTN 2017 version of corresponding tariff lines and current tariff duties of HDPE under Chapter 39 (Appendix 9).

Please also see tabulation of applicable tariff schedules for polymers of ethylene, including HDPE, entering into the Philippines (Appendix 10).

**NON-CONFIDENTIAL VERSION**  
**APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY**  
**CONFIDENTIAL**

- 3.4 Please describe the like and/or directly competitive products produced by Philippine industry (Submit samples (if possible), brochures, specifications and catalogues.)

All grades produced by JGSPC are marketed locally and worldwide under the brand name EVALENE®. JGSPC currently produces 13 HDPE grades for the ff. applications:

- Films (2 commercial grades)
- Injection Molding (5 commercial grades)
- Blow Molding (3 commercial grades)
- Pipe (2 commercial grades)
- Monofilament (1 commercial grade)

Please see attached Appendix 5 on brochure of JGSPC's current grades, with corresponding specifications and applications identified.

- 3.4 Explain how the products produced by the Philippine industry are like or are directly competitive with the imported products, including physical characteristics, tariff heading, tariff duty, end use, methods of manufacture and marketing system.

If the products you manufacture are not identical to the imported products, please give details and explain how you consider that they closely resemble or are substitutable with the imported products. Describe any differences in nature or end-use between the imported products and your product.

JGSPC's current and upcoming HDPE resin products are produced using two of the world's most widely-used PE process technologies, and as such are similar and substitutable with other imported HDPE resin products, especially those used for the same end-use applications.

Please see attached Appendix 11 for a description of the HDPE products JGSPC currently produces.

By 4Q 2020, JGSPC will start to operate its third PE line using US- based Chevron Phillips MarTECH ADL™ PE production technology. The line, which has a rated production capacity of 250 kTA, will be able to produce bimodal, metallocene, and bimodal metallocene HDPE resins, for which currently there is no local production. The new PE line will have an initial planned gradeslate of 8 new grades for HDPE, thereby bringing the total number of HDPE grades to 21 by end-2020.

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

Please see attached Appendix 12 for a description of the HDPE products JGSPC will be producing by end-2020 onwards.

**4 SOURCE/S OF THE IMPORTED PRODUCT**

For this section, all analysis of HDPE importations have been referenced against raw data sourced from the Bureau of Import Services (BIS). Please see attached Appendix 13 for the raw imports data from BIS.

**4.1 Name the countries of export of the imported product.**

Please see attached listing of countries that have exported HDPE into the Philippines from 2015 to 2019 (Appendix 14).

**4.2 Provide the names and addresses of the overseas producers and/or exporters supplying the imported products.**

Please see attached listing of suppliers that have exported HDPE into the Philippines from 2015 to 2019 (Appendix 15).

**4.3 Give the names and addresses of any known importers of the imported products and describe the nature of their business, e.g. wholesaler, retailer.**

Please see attached listing of importers that have imported HDPE into the Philippines from 2015 to 2019 (Appendix 16).

**4.4 Indicate when the imported products began causing injury.**

As a result of the increasing import volume of lower priced competitor products, the local company's financial performance started to struggle from 2017 onwards.

**INJURY**

In order to investigate claims of serious injury or threat thereof, the Bureau of Import Services must have evidence showing:

- \* The increased volume of imports of the product under consideration
- \* The impact of the increased imports on the Philippine market
- \* The economic impact of the increased imports of the product under consideration on the Philippine producers.

All information provided to support claims of injury unless specifically requested must cover the last five (5) years immediately preceding the date of the protest. If the application was submitted on the second semester of the current year, the information shall cover the previous



**NON-CONFIDENTIAL VERSION**  
**APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY**  
**CONFIDENTIAL**

five (5) years and the period of the current year for which statistics are available.

It is important for applications to show a causal link between the increased imports of the product under consideration and the alleged injury. For example, a decrease in local production and sales may be causally linked to an increase in imports of the imported product. You may believe that although your industry is not currently suffering injury, there will be injury if the importation of the product under consideration is not stopped. Your application will then be based on threat of injury.

When the Bureau of Import Services makes a determination of threat of injury it does so on the basis of guidelines set down in Section 12 of RA 8800 and its implementing rules and regulations.

A determination must be based on facts, not merely on allegation, conjecture or remote possibility. The change in circumstances which will create a situation in which the increased imports of the product under consideration will cause injury must be clearly foreseen and imminent.

In considering the injury factors set out in RA 8800, the Bureau will take account of the following key factors among others, in determining that a threat of injury exists:

- \* The likelihood of substantially increased imports evidenced inter alia by existence of letters of credit, supply contract, award of a tender or irrevocable offer
- \* The exporters' capacity to increase exports in the Philippine market
- \* Inventories of the products being investigated
- \* Economic impact on Philippine producers.

None of these factors alone will necessarily give decisive guidance to the determination, but taken together, must lead to the conclusion that further increased exports are imminent and that, unless protective action is taken, serious injury could occur.

Your application should have enough information to permit the Bureau to assess the claims in terms of these guidelines.

In critical circumstances where a delay would cause damage which would be difficult to repair, and after a preliminary determination that increased imports are a substantial cause of, or threatens to substantially cause serious injury to the domestic industry, provisional safeguard measures may be imposed. If you think this situation applies to your industry, then you should request that provisional safeguard measures be imposed. You must also state the degree or extent to which the application of such provisional measures will help improve your present situation. Please provide also a

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

statement on the impact to your industry if imports continue within the next sixty (60) days of the filing of the petition.

The Philippine industry through this safeguards application respectfully request for immediate imposition of provisional safeguard measures for HDPE. From 2017-onwards, the industry has struggled against the increasing volumes of low-cost imports, owing to increasing overcapacity of certain low cost producers worldwide. The local producer is currently expanding capacity further in response to increasing local market volume demand, but has been finding it difficult to compete for the past three years as the import volumes have surged and may continue to surge without the imposition of appropriate safeguards. This imperils not just the existing investments of the local industry but also its ongoing capacity expansion.

## 5 INCREASED IMPORT VOLUME

Please see attached tabulation of HDPE importations by volume and value from 2015 to 2019 (Appendix 17).

### 5.1 State quantities of imports of the imported product.

**Figure 4. Import Volume per Year**

YEAR	HDPE (MT)	REMARKS
YTD 11M 2019	105,151	Volumes sorted from available BIS data
2018	86,997	
2017	82,796	
2016	98,255	
2015	78,829	

### 5.2 State dollar value of imports of the imported product.

**Figure 5. Import Value per Year (USD)**

YEAR	HDPE (USD)	REMARKS
YTD 11M 2019	116,845,677.59	Volumes sorted from available BIS data; Imports Value using declared Customs Value
2018	90,259,664.11	
2017	99,236,923.58	
2016	116,955,983.30	
2015	103,374,781.00	

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

**Figure 6. Import Value per Year (PhP)**

YEAR	HDPE (PHP)	BSP EXCHANGE RATE (PHP/USD)	REMARKS
YTD 11M 2019	6,052,113,319.97	51.80	Converted using average BSP Exchange Rate for given period
2018	4,753,202,979.20	52.66	
2017	5,001,910,089.32	50.40	
2016	5,554,527,809.91	47.49	
2015	4,703,846,113.90	45.50	

**Figure 7. Import Value per Unit per Year**

YEAR	HDPE (USD/MT)	HDPE (PHP/MT)	REMARKS
YTD 11M 2019	1,111.22	57,556.54	Volumes sorted from available BIS data; Imports Value using Declared Customs Value
2018	1,037.50	54,636.45	
2017	1,198.57	60,412.31	
2016	1,190.33	56,531.50	
2015	1,311.38	59,671.72	

For both items on this page, please provide these details for the most recent five (5) years available, if possible by month or by quarter and for each country from which imports are being sourced. This information may be available from the National Statistics Office or the Bureau of Customs.

## 6 ECONOMIC IMPACT

Complete the following injury summary for domestic sales of the like or directly competitive product for the most recent five (5) years available, if possible by month or by quarter.

Table should show the consolidated figures of all the producers by or for whom this application is made. Please state if the table covers different accounting years, and if so, identify the different accounting years for each producer.

### **Injury Summary**

Accounting Period

Sales Volume

Revenue

Cost of Production

Gross Profit

Selling and Admin.

Earnings Before Interest and Tax (EBIT)

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

**Per Unit:**  
Revenue  
Cost of Production  
Gross Profit  
Selling and Administration  
EBIT

Please see attached financials for JGSPC's HDPE from 2015 to 2019 (Appendix 18).

**Figure 8. Domestic HDPE - Sales Volume and Value - 2015 - 2019**

YEAR	SALES VOLUME (MT)	SALES REVENUE (PHP)	AVERAGE SELLING PRICE PER UNIT (PHP/MT)
CY 2019		Confidential	
CY 2018			
CY 2017			
CY 2016			
SP 2015			
FY 2015			

**Figure 9. Domestic HDPE - Cost to Produce - 2015 - 2019**

YEAR	PRODUCTION VOLUME (MT)	PRODUCTION COST (PHP)	PRODUCTION COST PER UNIT (PHP/MT)
CY 2019		Confidential	
CY 2018			
CY 2017			
CY 2016			
SP 2015			
FY 2015			

**Figure 10. Domestic HDPE - Selling and Administration Cost - 2015 - 2019**

YEAR	SELLING AND ADMINISTRATION COST (PHP)	SELLING AND ADMINISTRATION COST PER UNIT (PHP/MT)
CY 2019	Confidential	
CY 2018		
CY 2017		
CY 2016		

**NON-CONFIDENTIAL VERSION**  
**APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY**  
**CONFIDENTIAL**

SP 2015	
FY 2015	

**Figure 11. Domestic HDPE – Cost of Goods Sold – 2015 - 2019**

YEAR	COST OF GOODS SOLD (PHP)	COST OF GOODS SOLD PER UNIT (PHP/MT)
CY 2019	Confidential	
CY 2018		
CY 2017		
CY 2016		
SP 2015		
FY 2015		

**Figure 12. Domestic HDPE – Gross Profit – 2015 - 2019**

YEAR	GROSS PROFIT (PHP)	GROSS PROFIT PER UNIT (PHP/MT)
CY 2019	Confidential	
CY 2018		
CY 2017		
CY 2016		
SP 2015		
FY 2015		

**Figure 13. Domestic HDPE – EBITDA – 2015 - 2019**

YEAR	EBITDA (PHP)	EBITDA PER UNIT (PHP/MT)
CY 2019	Confidential	
CY 2018		
CY 2017		
CY 2016		
SP 2015		
FY 2015		

**Figure 14. Domestic HDPE – EBIT – 2015 - 2019**

YEAR	EBIT (PHP)	EBIT PER UNIT (PHP/MT)
CY 2019	Confidential	
CY 2018		
CY 2017		

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

CY 2016	
SP 2015	
FY 2015	

Complete the following cost of production of the like or directly competitive product under protest for the most recent five (5) years available.

Raw Materials  
Conversion Cost

Specify  
Direct Labor  
Factory Overhead  
Variable Expense  
Fixed Expense

**Figure 15. HDPE Production Cost per MT – 2015 - 2019**

COST COMPONENTS <i>Unit: PhP/MT</i>	FY 2015	SP 2015	CY 2016	CY 2017	CY 2018	CY 2019
Confidential						

Please see attached breakdown of production cost per unit for JGSPC's HDPE from 2015 to 2019 (Appendix 19).

## 6.1 OUTPUT

6.1.1 Provide details of any decline in the industry's output of the like or directly competitive product for the Philippine market for the last five (5) years.

While in 2018, JGSPC tried to maintain its production volumes to help maintain its market share, by 2019 production volumes had to be reduced to mitigate any further losses.

Please refer to JGSPC HDPE production volume from 2015 to 2019 in Figure 9.

## 6.2 RAW MATERIALS USAGE

6.2.1 Indicate the utilization for each major raw material used for production of the like or directly competitive product.

The primary raw material component for HDPE are the olefin ethylene and comonomers butene and hexene. On a per product basis, the raw materials usage will depend on the specific grade of HDPE product. JGSPC secures a Formula of Conversion from the Department of Science and Technology (DOST) for its various HDPE products, which specifically shows the breakdown of raw material usage and wastage per product grade.

Please see attached Formula of Conversion showing the raw material utilization of JGSPC for its various HDPE grades (Appendix 20).

**6.2.2 State whether the specific raw material is imported or locally produced.**

The primary raw material ethylene is mainly sourced from the upstream naphtha cracker operated by JG Summit Olefins Corporation (JGSOC), JGSPC's affiliate company, which started commercial operations in November 2014. The secondary raw materials, the comonomers hexene-1 and butene-1, are 100% imported, as well as the other raw materials such as additives and catalysts.

**6.3 SALES**

Please see accompanying summary of information regarding JGSPC sales and financials, as well as market and imports information for HDPE, from 2015 to 2019 (Appendix 21).

**6.3.1 Provide details of any decline in the industry's sales of the like or directly competitive product for the last five (5) years.**

Please refer to Figure 8 for the table showing JGSPC domestic sales for HDPE, by volume and value, from 2015 to 2019, and as also indicated in Appendix 21.

**6.3.2 Explain any lost sales due to direct competition from the imported product.**

Since 2017, JGSPC has been steadily losing substantial sales volumes from its existing customers, due to increase in volume of importations of competing products that are being sold at much lower prices, even lower than JGSPC's own cost to produce and sell.

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

6.3.3 Give copies of any correspondence or cancelled orders from the industry's customers showing they are buying the goods from other sources.

Please see attached HDPE imports of JGSPC customers from 2015 to 2019, and their corresponding HDPE purchases from JGSPC for the same period (Appendix 22).

6.3.4 Provide a schedule of volume and value of export sales over the most recent five (5) years available, if possible by month or by quarter.

**Figure 16. HDPE Exports - Sales Volume and Value - 2015 - 2019**

YEAR	SALES VOLUME (MT)	SALES REVENUE (PHP)
CY 2019		Confidential
CY 2018		
CY 2017		
CY 2016		
SP 2015		
FY 2015		

Please see attached performance of JGSPC sales for HDPE, from 2015 to 2019 (Appendix 18).

#### 6.4 MARKET SHARE

6.4.1 Provide evidence of the size of the Philippine market, preferably by volume, but otherwise by value, for the last five (5) years.

**Figure 17. HDPE Market Size - 2015 - 2019**

YEAR	IMPORTS VOLUME (MT)	JGSPC DOMESTIC SALES (MT)	TOTAL VOLUME (MT)	JGSPC SHARE (%)
CY 2019	105,151			
CY 2018	86,997			
CY 2017	82,796			
CY 2016	98,255			
CY 2015	78,829			

Please see attached estimation of HDPE market size from 2015 to 2019 (Appendix 23).



**NON-CONFIDENTIAL VERSION**  
**APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY**  
**CONFIDENTIAL**

- 6.4.2 Compare the market share of domestic industry with the share held by imports over the most recent five (5) years where data is available.

Please refer to estimation of HDPE market share of JGSPC from 2015 to 2019 in Figure 17.

## **6.5 PRICES**

- 6.5.1 Outline the extent to which the increased imports have affected domestic prices for the most recent five (5) years, where data is available. Provide supporting documents e.g. price lists, invoices, decline in average unit ex factory prices, increases in costs and any information on your pricing policy and history.

To help protect its market share, JGSPC as much as possible tries to adopt import parity. However by doing so JGSPC is heavily disadvantaged as import prices have been consistently lower than the cost to produce and sell.

Please see attached comparison of JGSPC costs versus import prices (Appendix 24).

## **6.6 PROFITS**

- 6.6.1 Explain how the gross and net profit on the domestic sales of like or directly competitive product have been affected. This explanation should be consistent with changes in gross and net profit shown on page 13 above.

The low prices of imported HDPE have affected the gross profit on the domestic sales of locally-produced HDPE. In order to compete and defend its market share, the Philippine producer is forced to adopt a policy of import parity pricing, and as such is forced to sell its products at a price below its cost to produce and sell plus a reasonable margin to recover investment.

Please refer to JGSPC gross profit on HDPE products from 2015 to 2019 in Figure 12.

## **6.7 PRODUCTIVITY**

- 6.7.1 Show how productivity has been affected in the most recent five (5) years, monthly or quarterly if possible. Remember to state the basis used for measuring productivity (e.g. Production per worker, or per period etc.)

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

With reduced production volumes in the past two years, now half of 2017 produced volume, the productivity per person is shown to be reducing. However, the local petrochemical industry continues to hire skilled workers, such as engineering or science or technical-vocational graduates, thus contributing to reducing the need for these skilled workers to find overseas employment. Despite weakening production, continuous hiring is important to ensure that there is sufficient buffer for the current operational requirements, plus some pre-hiring of those to be trained for the upcoming new builds, which will start to be operational in 2020.

**Figure 18. Production Efficiency Per Employee - 2015 - 2019**

YEAR	DIRECT LABOR	PRODUCTION (MT)	EFFICIENCY/ UNIT/ EMPLOYEE
CY 2019			
CY 2018			
CY 2017			
CY 2016			
CY 2015			

Please see attached Appendix 20 on labor and productivity for HDPE products from 2015 to 2019.

## **6.8 RETURN ON INVESTMENTS**

- 6.8.1 Show return on shareholders' funds or return on assets, or a similar appropriate measure of return on investment, in terms of net profit for the most recent five (5) years available.

Due to negative earnings for the past three years specifically for HDPE products, the local producer is currently struggling to provide positive returns to shareholders coming from HDPE sales.

Moreover, JGSPC already has under construction an additional 250 kTA PE plant, whose financial viability is currently imperiled if the low-priced imports of LLDPE were to continue.

- 6.8.2 Provide details of how any allocation of shareholder's funds or assets has been made to like or directly competitive product.

In 2017, JGSPC decided to proceed with the construction of a new PE plant, which uses a different technology that is also capable of producing bimodal, metallocene and bimodal

**NON-CONFIDENTIAL VERSION**  
**APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY**  
**CONFIDENTIAL**

metallocene HDPE, which currently are not part of the existing JGSPC gradeslate.

This was decided in part to capture markets currently not served by JGSPC and the other local producer, but also to help improve costs of production by using a new and more efficient production technology.

## 6.9 USE OF PRODUCTION CAPACITY

6.9.1 State the industry's production capacity for the most recent five (5) years available, if possible on a monthly or quarterly basis, for the like or directly competitive product.

Explain the basis for this assessment, e.g. machine capacity, number of shifts, and state the units of measurement, for example, tons, meters, liters.

JGSPC's combined production capacity for PE is 320 kilotons per annum (kTA). This is the combined capacity for HDPE and LLDPE, as the two 160 kTA PE units are swing reactors that can produce both types of resins.

By 4Q 2020, JGSPC is expanding its production capacity to 570 kTA with the addition of the new 250 kTA PE Plant, also capable of producing both HDPE and LLDPE.

6.9.2 What has been the industry's capacity utilization rate for the periods specified above?

**Figure 19. HDPE Capacity Utilization - 2015 - 2019**

YEAR	INSTALLED CAPACITY (MTA)	DOMESTIC PRODUCTION (MT)	TOTAL UTILIZATION (%)
CY 2019			
CY 2018			
CY 2017			
CY 2016			
CY 2015			

*Note: JGSPC operates 2 x 160 kTA PE plants, both of which can produce HDPE and LLDPE. NPCAC's 250 kTA plant likewise is also a swing facility that can produce both HDPE and LLDPE.*

In trying to maintain market share, JGSPC has tried to maintain production volumes to greater than 1 per annum, despite the poor financial returns that have started to be experienced from 2017 onwards.

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

Please see attached capacity utilization for HDPE from 2015 to 2019 (Appendix 20).

## 6.10 INVENTORIES

6.10.1 Provide details on the effect of increased imports of the product under consideration on the volume and value of inventories of the like or directly competitive products in absolute terms and relative to sales and domestic production for the most recent five (5) years.

**Figure 20. JGSPC HDPE Finished Goods Inventory - 2015 - 2019**

YEAR	INVENTORY VOLUME (MT)	INVENTORY VALUE (PHP)
CY 2019		Confidential
CY 2018		
CY 2017		
CY 2016		
SP 2015		
FY 2015		

Since 2017, remaining inventory year on year has been increasing, which reflects the increasing difficulty to reduce inventory by year-end due to increase in volume of lower-priced imports in the market.

Please see attached JGSPC end-year inventory for HDPE from 2015 to 2019 (Appendix 20).

## 6.11 OTHER ADVERSE EFFECTS

6.11.1 Please give evidence to support claims of injurious effects (actual or potential) in any of the following areas for the most recent five (5) years:

- \* Cash flow - specify cash inflows and cash outflows
- \* Employment
- \* Wages
- \* Growth
- \* Ability to raise capital
- \* Investments

The negative financial status of Philippine industry has made it increasingly difficult to get financing for its modernization, expansion and operational requirements. Cash flow has been affected because of the lower returns on sales. Philippine industry has been unable to increase the wages up to

global standards because of the negative financial situation. The inability to increase wages makes it more difficult for Philippine industry to hold on and retain its more important technical personnel.

#### **6.12 OTHER CAUSES OF INJURY**

Please comment on factors other than the imported product that have injured, or are injuring the industry. These factors could include:

- \* Reduction in demand or changes in the pattern of consumption
- \* Restrictive trade practices of, and competition between, overseas and the Philippine producers
- \* Developments in technology
- \* The export performance of the Philippine producers.

1. US and Middle East petrochemical plants are heavily cost-advantaged versus Asian petrochemical plants

- The main raw material for all PE, including HDPE, is ethylene, which is primarily derived from either naphtha cracking or ethane cracking. US and Middle East crackers typically use ethane, a plentiful resource in both regions, as the feedstock for their ethylene and PE, while Asian and European crackers on the other hand typically use either domestic or imported naphtha. In the case of the upstream cracker operated by JG Summit Olefins Corp., from which our ethylene is sourced from, the feedstock is mostly imported naphtha, as local refinery production is insufficient in supply and quality for the cracker's needs.
- However, naphtha crackers are very much cost-disadvantaged on ethylene costs compared to ethane crackers. Thus, exporters of HDPE, especially those coming from ethane-producing countries, are able to drop their prices much lower than domestic pricing, and still with ample margin space to absorb the duties and be sold lower than or at parity with local pricing.

2. The US shale gas boom has led to an oversupply of PE, which is primarily intended for export and is expected to flood Asian markets.

- Major petrochemicals players such as Dow and ExxonMobil are at the forefront of US expansions. Almost all new ethane crackers are integrated with downstream PE, some of which target HDPE as the main PE product. The integration towards PE resins is in response to ensuring that the end-products are those that can be more easily sold into the world market, rather than ethane and ethylene which are gases that require specialized vessels to be traded. As such, US PE exports have been rapidly ramping up since 2017.

3. The current US-China trade war has caused displacement of usual trade flows, giving rise to increased exports into the Philippines.

- Due to the current US-China trade war ongoing since 2018, the massive volumes of US PE originally intended to supply China is now forced to enter other markets, and thus the normal trade patterns are disrupted. Along with the increasing presence of US and Middle East sourced imports, Asian producers have also started to heavily trade into the Philippines, at prices competing also against low-priced US and Middle East imports, all of which have been taking away from the local producer's market share.

### 6.13 IMPORTS BY THE INDUSTRY

If the industry has imported the subject product in the past five (5) years please provide:

- \* Full description of the product
- \* Details of each shipment (including dates of importation, supplier, country of origin, volume and value (FOB and CIF).
- \* An explanation why the industry has imported the subject product.

In 2015, JGSPC imported a competitor HDPE resin for trial purposes in relation to packaging material development.

Please see attached listing of JGSPC purchases of imported HDPE resins by volume and value from 2015 to 2019 (Appendix 25).

Please see attached product data sheet for the HDPE product imported by JGSPC (Appendix 26).

## 7 SAFEGUARD MEASURES SOUGHT

7.1 Provide a statement on the form and duration of the safeguard measures you would like to be implemented by the government to assist your industry.

The local industry seeks a safeguard of **PhP 15,000/MT or USD 300/MT** to be applied immediately and for a period of **10 years**, to all **imported HDPE resins** being brought in from all sources, using tariff code **3901.20.00**.

## **8 ADJUSTMENT PLAN**

- 8.1 Provide a statement on the adjustment plan or set of actions that the domestic producers will undertake for the purpose of improving their competitiveness and adopting to the new market conditions.

### **Short to Medium Term (Present up to 10 years)**

JG Summit Petrochemical Corporation (JGSPC) is currently undertaking or plans to undertake the following projects and initiatives to help optimize existing assets, ensure the viability of upcoming investments and improve competitiveness versus products for which safeguards are being sought.

#### **A. Improve Economies of Scale and Competitive Advantage**

##### **1. New 250,000 MTA PE Plant**

- Currently ongoing construction is an additional 250 kTA PE plant that will be able to produce both HDPE and LLDPE, using US-based Chevron Phillips MarTECH ADL™ PE production technology. This capacity, in addition to currently existing 320 kTA, will bring JGSPC's combined PE production capacity to 570 kTA, in an effort to match projected local market demand in the short to medium term. As the petrochemical complex itself already exists and has many of its utilities outside battery limits available or requiring minimal modification to accommodate increase in capacity, the production economies of scale are improved as well as overall costs to produce and sell.
- In addition, use of the MarTech ADL™ PE production technology will allow JGSPC to produce higher value PE products, such as bimodals and metallocenes, currently not produced in its existing PE plants, enabling JGSPC to cover a wider range of HDPE applications currently served by imported products, and increase its domestic market share.
- Status: Construction Ongoing
- Date Available: 4Q 2020

#### **B. Improve on Costs**

##### **2. Power – 100 MW Coal-Fired Power Plant**

- The petrochemical complex where the HDPE polymer manufacturing plants are located currently source its power requirements primarily from its own diesel generators and secondarily from the grid. With power costs making up most of the variable cost, it is imperative to find ways to improve on both reducing the power costs and reducing power consumption. To this end, JGSPC plans to put up a 100 MW coal-fired power plant to

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

provide for its own power requirements, using latest Circulating Fluidized Bed technology for cost efficiency and even reduced emissions as opposed to current diesel or bunker-fired generation.

- Status: Under evaluation
- Date Available: 2023

3. Raw Material Cost – Expansion of Cracker (source of ethylene)
- JGSOC's cracking facility is currently also undergoing expansion, again in an effort to improve economies of scale and to help build up capacity to match projected local market demand in the short to medium term. With the 50% increase in cracking capacity, larger bulk shipments of the feedstock naphtha and LPG are made possible, which in turn will translate into lower feedstock costs per MT for the production of ethylene, which is the primary raw material for HDPE.
  - Status: Ongoing commissioning
  - Date Available: 1Q 2020

4. Raw Material Costs – Additives and Catalysts Savings
- With the new PE project, JGSPC invested in a catalyst activator which will allow JGSPC to activate its catalysts onsite rather than offsite (abroad), including those catalysts used for its existing plants, thereby helping to reduce on catalyst activation costs.
  - Status: Construction Ongoing
  - Date Available: 4Q 2020
  - JGSPC also continuously reviews its catalysts and additives portfolio in an effort to find suitable alternative additives at lower cost, as well as higher productivity/efficiency alternatives for its catalysts.
  - Status: Ongoing

**C. Improve Plant Reliability**

5. Benchmarking Study on Reliability and Maintenance Performance
- JGSPC is undertaking a maintenance benchmarking study to analyze the primary factors impacting plant reliability and maintenance effectiveness, thereby helping identify key inefficiencies, to enable the maintenance team to focus efforts on specific and measurable improvements and leverage resources to where most needed.
  - Status: Ongoing
  - Date Available: 2Q 2020



**D. Improve Production Efficiency and Output**

**6. Purchase of Operator Training Simulator (OTS)**

- For the new PE plant, JGSPC has procured an Operator Training Simulator which is a system of networked computers programmed to mimic the actual plant processes and associated control systems. The plant model running in the OTS server is built using the same engineering data that is used in the actual plant, using graphics that are identical to those used in actual control systems. With simulated training, trainees can get operational experience in an environment that closely resembles the actual plant without posing any risk to the actual plant, thereby helping minimize incidence of plant upsets caused by human-related errors.
- Status: Ongoing purchase of software
- Date Available: 2H 2020

**7. Advanced Process Control (APC) System**

- Advanced Process Control (APC) is a technology that uses computers to predict the behavior of the plant and manage the changes that continuously happen in the plant. It attempts to mimic the actions of the most efficient and knowledgeable human control operator, except it works untiringly 24/7, 365 days in a year. JGSPC uses APC modules to help improve plant control stability, feed and production maximization, reduce energy consumption, and reduce variability in product quality,
  - o Upgrade for Existing PE Plants:
    - Status: Completed
    - Date Available: 2020
  - o New APC for New PE Plant:
    - Status: Data gathering to be initiated once new PE plant is operational
    - Date Available: Targeting 2024

**RA 8800 - SAFEGUARD MEASURES ACT**

**Application to Initiate a Safeguard Measures Investigation**

I hereby apply to initiate a safeguard measures investigation

on HIGH DENSITY POLYETHYLENE (HDPE)  
from ALL EXPORTING COUNTRIES

In support of this application I attach evidence of:

- (i) Volume of Increased Imports
- (ii) Injury to the industry; and
- (iii) A causal link between the increased imports and alleged injury.

and such information as is reasonably available to me in relation to the matters referred to in RA 8800, the Philippine Safeguard Measures Act.

This application is made by JG SUMMIT PETROCHEMICAL CORPORATION in behalf of the Philippine Industry producing like or directly competitive product to those subject to the application comprising a major proportion of the total Philippine production of those products.

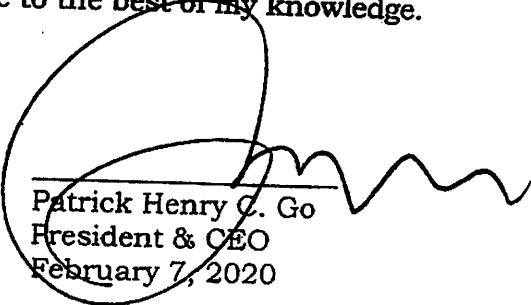
Furthermore, I certify that the information contained in this application are accurate and complete to the best of my knowledge.

Signature:

Name:

Position:

Date:

  
Patrick Henry C. Go  
President & CEO  
February 7, 2020

**NON-CONFIDENTIAL VERSION**  
**APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY**  
**CONFIDENTIAL**

**1 THE APPLICANT/S**

Please give details for each of the Philippine producer/s by or on whose behalf this application is made.

- 1.1 Name: JG Summit Petrochemical Corporation
- 1.2 Address:
- Head Office: 10F-11F, Robinsons Cyberscape Gamma Bldg.,  
Topaz and Ruby Roads, Ortigas Center,  
Brgv. San Antonio, Pasig City, Philippines 1605
- Plant: Barangay Simlong, Batangas City, Philippines 4200
- 1.3 Phone: (632) 8 230-5000 / (632) 8 397-3200
- 1.4 Fax: (632) 8 395-2674

E-mail address: Rhoda.Balilla@jgspetrochem.com  
Veron.Munar@jgspetrochem.com

1.5 Names and titles of contact people for this case.

Atty. Rhoda M. Balilla	Legal Counsel
Maria Veron M. Marasigan	Manager, Business Development, Research and Communications

1.6 Ownership details. Submit articles of incorporation; SEC registration etc.

See attached:

- a. SEC Registration (Appendix 1)
- b. Articles of Incorporation (Appendix 2)
- c. General Information Sheet (Appendix 3)

Provide broad details of shareholding e.g. \_\_\_\_ privately owned, or  
\_\_\_\_ Corp., \_\_\_\_ Corp.

JGSPC is 100% owned by JG Summit Holdings, Inc. (JGSHI), one of the country's largest and most diversified conglomerates, with investments in various sectors such as food and agribusiness, air transportation, property development, banking, telecommunications, power and petrochemicals. JGSHI has been publicly listed since 1993.

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

**1.7 Details of company accounting year.**

Please find attached audited financial statements (Appendix 4) for the ff. accounting periods:

Fiscal Year 2015	Oct 2014 – Sept 2015	(Appendix 4A)
Short Period 2015	Oct 2015 – Dec 2015	(Appendix 4B)
Calendar Year 2016	Jan – Dec 2016	(Appendix 4C)
Calendar Year 2017	Jan – Dec 2017	(Appendix 4D)
Calendar Year 2018	Jan – Dec 2018	(Appendix 4E)

For this safeguards application, information for Calendar Year 2019, covering the period January 2019 to December 2019, was also provided. The CY 2019 audited financial statement will be submitted as soon as available.

**1.8 Briefly list all products manufactured and/or sold.**  
(Continue on separate sheet if needed.)

- JGSPC markets its resin products under the brand name EVALENE®.
- EVALENE® High Density Polyethylene (HDPE)
  - **EVALENE® Linear Low Density Polyethylene (LLDPE)**
  - EVALENE® Polypropylene (PP)

For a complete list of the existing Unipol™-based product grade slate, please refer to attached brochure (Appendix 5).

JGSPC seeks safeguards measures for competing imported PE products, regardless of source country.

***This document is the application for LLDPE.***

**1.9 Describe your distribution channels**

For local and indirect export sales, JGSPC primarily sells its LLDPE resins directly to over 200 local plastic products manufacturers, and secondarily through distributors.

For export sales, JGSPC mainly sells through accredited distributors and trading partners, but may also sell directly to plastics products manufacturers. Since 1998, JGSPC has sold its products to over 30 countries worldwide.

- 1.10 Describe your production process. Provide flowchart of manufacturing operations.

**UNIPOL™ PE Production Process (existing 320 kTA plant)**

UNIPOL™ PE Technology is one of the world's most widely used PE technology, having more than 165 licensed reactor lines in 28 countries, with total capacity of more than 48 million MTA. Below is a brief description of the UNIPOL™ PE production process.

**Purification:**

- The Purification Area is designed to remove impurities in the raw materials, ethylene, butene, hexane, hexene, nitrogen, and hydrogen. These impurities include acetylenes, conjugated dienes, halogens, oxygenated and sulfur compounds. These impurities may cause the production of undesired by-products in the reaction or simply cause the reaction to stop.

**Reaction:**

- Resin is produced in a fluidized bed reactor by the polymerization of ethylene. Depending on the grade being produced, hexene or butene is added into the system to obtain desired polymer density. Catalyst is used to increase the reaction rate. An induced condensing agent, hexane, is added into the system to help cool the reactor. Nitrogen gas is used to pressure up the reactor and maintain gas compositions. Products are discharged into a Product Discharge System and are conveyed to the resin degassing section. The production rate for each of the two reactors is about 20 metric tons (MT) per hour or 160,000 MT per annum.

**Resin Degassing:**

- After the reaction, the resin is conveyed towards the product purge bin. In this vessel, resin is separated from dissolved hydrocarbons by a steady flow of nitrogen countercurrent to the product stream. Residence time, which indicates the amount of hydrocarbons purged from the resin, is controlled by the resin level inside the bin.

**Vent Recovery:**

- The vent recovery system is designed to recover gases purged from the resin degassing section. This improves the overall efficiency of the process and at the same time minimizes the amount of gas vented off to the atmosphere. The recovered gases are used to convey the products from the reaction section to the resin degassing.

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

**Additive Addition and Extrusion:**

- The resin from the product purge bin then goes to the extrusion area where additives that improve the physical property of the polymer are added. These mechanical properties include but are not limited to the tensile strength, elasticity and overall processability of the product. Moreover, additives to improve product handling are added such as anti-static and anti-block. Anti-oxidants, which help retard polymer degradation, are also added to extend the life of the polymer. The additives and resin are melted and mixed in the extruder. After which, they are pelletized for easy handling and storage. The pellets are then conveyed to the silos at an average production rate of 12.5 MT per hour.

**Product Silos:**

- Pelletized resin are then conveyed to the product silos in preparation to bagging. The silos serve as temporary storage for the pellets with a capacity of 200 tons per silo.

Please see attached process flow diagram of JGSPC for the Unipol™ PE Process (Appendix 6A).

**Chevron Phillips MarTECH ADL™ PE Production Process  
(upcoming 250 kTA plant)**

Chevron Phillips's loop slurry process technology was first introduced in 1961 and is today one of the world leaders in PE production and licensing, with more than 80 licensed plants in 20 countries. Below is a brief description of the Chevron Phillips MarTECH ADL™ PE production process.

**Purification:**

- The feedstocks ethylene, hexene, isobutane and hydrogen go through a purification process to remove reaction poisons such as water, oxygen, carbon monoxide, carbon dioxide and organic compounds containing sulfur, oxygen or halogens before they are charged into the reactor.

**Reaction:**

- Monomer ethylene, catalyst, co-monomer and co-catalyst are fed into the first slurry loop reactor where polymer particles grow while being suspended and circulated in a hydrocarbon diluent, isobutane. The temperature of the slurry in the loop is kept uniform by a circulating pump. The heat of reaction is removed by an external cooling water heat exchanger.
- In bimodal operation, the first reactor produces the high molecular weight polymer. The polymer is then transferred to the second reactor by a pipe transfer system. In the second reactor, the low molecular weight polymer is produced by introducing a high

**NON-CONFIDENTIAL VERSION**  
**APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY**  
**CONFIDENTIAL**

concentration of hydrogen. The catalysts have their own dedicated feeding system into the reactor.

**Vent Recovery:**

- Polymer from the 2nd reactor is heated and the hydrocarbons are flashed in a flash chamber. The flashed gases are sent to the recovery system while resin is dropped down to a purge column. The purge column removes the remaining hydrocarbons in the polymer.
- The flashed gases are separated in a series of columns to recover isobutane, 1-hexene and nitrogen which are recycled back to the reactor and conveying system.

**Extrusion and Additive Addition**

- The powder from the polymerization section is fed into the additives and pelletizing unit where it is blended with additives and sent to the extruder feed screw for extrusion. The additives and resins are then mixed and melted by means of two counter-rotating non-intermeshing screws. For easy handling and storage, molten polymer is then made to pass through a die plate and then cut to produce pellets. The pellets are then extruded under water via the pelletizer. These are then sent to the pellet drier for drying and conveyed to the pellet blenders where the pellets are homogenized before being conveyed to the packaging section where the products are bagged and stored.

Please see attached process flow diagram of JGSPC for the Chevron Phillips MarTECH ADL™ PE Process (Appendix 6B).

**2. OTHER PHILIPPINE PRODUCER/S**

Please give details for any other Philippine producer/s.

NPC Alliance Corporation (NPCAC) is the only other PE producer in the Philippines. Details shown below are based on NPCAC's website - <https://www.npcac.com.ph/>.

2.1 Name NPC Alliance Corporation

2.2 Address

Head Office: 19th Floor Antel 2000 Corporate Center,  
121 Valero St., Salcedo Village  
Makati City, Philippines 1226

Plant: PAFC Industrial Park, Barangay Batangas II  
Mariveles, Bataan, Philippines 2105

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

2.3 Phone +632 819 0883  
2.4 Fax +632 819 0884  
E-mail address info@npcac.com.ph

2.5 Briefly, list all products manufactured and/or sold.

NPCAC's 250 kTA plant, which started operations in 2001, uses INEOS's Innovene™ Technology. While the technology is capable of producing both HDPE and LLDPE, NPCAC has mostly produced HDPE grades in the past. Exact product grades they produce however is no longer viewable in their website.

NPCAC is reportedly has been shut down indefinitely and based on publicly available data from the Bureau of Import Statistics, their last recorded importation of ethylene, the primary raw material for LLDPE, was in May 2015.

**2a. SUMMARY OF PHILIPPINE PRODUCERS**

Total Philippine Domestic Production of Like or Directly Competitive Products for the Past Five (5) Years

(During the period 2015/01/2015 to 2019/12/31)

The period is the most recent representative period immediately preceding the date of herein protest.

Domestic production of like or directly competitive products by those Philippine producers who have, in writing, supported the Application

**Figure 1. Production of Philippine Producers Supporting this Application**

Producer	Total A Quantity (in MT)
JGSPC	
<b>Total LLDPE</b>	

*\*Combined FY 2015 (Oct 2014 – Sept 2015) and SP 2015 (Oct 2015 – Dec 2015) volumes*

Domestic production of like or directly competitive products by other Philippine producers

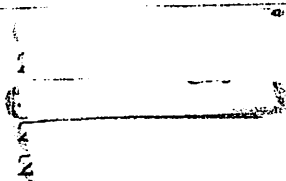


**Figure 2. Production of Other Philippine Producers**

Producer	Total B Quantity (in MT)
NPCAC	2015: 0 MT (est.)
	2016: 0 MT (est.)
	2017: 0 MT (est.)
	2018: 0 MT (est.)
	2019: 0 MT (est.)
<b>Total LLDPE</b>	<b>Total B : 0 MT (est.)</b>

Total domestic production of like or directly competitive products by Philippine producers

**Figure 3. Total Domestic Production of Philippine Producers**

Total Domestic Production (i.e. Total A + Total B )	Total C Quantity (in MT)
Total A as % of Total C = <u>100%</u>	
<b>Total LLDPE</b>	

Total domestic production (i.e. Total A + Total B ) Total C

Only JGSPC is filing for a safeguards case and only JGSPC production volumes are known with certainty. It is assumed that NPCAC did not produce LLDPE in the last five years, as they reportedly have been producing HDPE only when they last operated.

### 3 THE PRODUCT

- 3.1 Please describe the imported product.  
(Submit samples (if possible), brochures, catalogues and specifications.)

Linear Low Density Polyethylene (LLDPE) is a type of polyethylene resin with densities ranging typically from 919 - 925 kg/cubic meter, and primarily sold as translucent white pellets or in granular form. LLDPE is made by polymerizing ethylene monomer using organometallic catalysts, while copolymerizing with linear alpha olefins 1-butene, 1-hexene or 1-octene.

**NON-CONFIDENTIAL VERSION**  
**APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY**  
**CONFIDENTIAL**

LLDPE is used to make blown and cast stretch film for packaging (e.g. general purpose bags, multilayer and monolayer laminated films), industrial (e.g. stretch wrap, collation film) and agricultural applications (e.g. mulch films, greenhouse films), as well as injection molded products such as lids.

LLDPE is imported into the domestic market under several HS and AHTN tariff headings, under 3901.10.12, 3901.10.92, 3901.40.00 and 3901.90.90. This multiplicity of tariff lines which LLDPE currently falls under is the subject of a petition filed by the Association of Petrochemical Manufacturers of the Philippines (APMP) with the Tariff Commission, received January 21, 2019, currently still pending resolution. APMP filed the petition in support of JGSPC, as JGSPC is the affected member company producing LLDPE.

Please see attached copy of the petition letter regarding tariff classification of LLDPE (Appendix 7).

Please find attached samples of data sheets of LLDPE resins being imported into the Philippines (Appendix 8).

- 3.2 Please provide the tariff classification, statistical code and tariff duty for the imported product. If included in a preferential agreement, state the nature if the requirement and margin(s) of preference granted. The Tariff Commission, Bureau of Customs, customs brokers or consultants can provide the correct tariff classifications.

Within the ASEAN region, trade of all resins including LLDPE is at 0% tariff duty. For resins imported from Most Favored Nation (MFN) sources (e.g. non-ASEAN), tariff duty for LLDPE varies depending on which tariff line it is imported under, from 3% - 10%. In addition, various trade agreements enacted between ASEAN or the Philippines and other free trade partner countries also have corresponding tariff schedules for LLDPE.

Please see attached excerpt from the ASEAN Harmonized Tariff Nomenclature 2017 version of corresponding tariff lines and current tariff duties of LLDPE under Chapter 39 (Appendix 9).

Please also see tabulation of applicable tariff schedules for polymers of ethylene, including LLDPE, entering into the Philippines (Appendix 10).

**NON-CONFIDENTIAL VERSION**  
**APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY**  
**CONFIDENTIAL**

- 3.3 Please describe the like and/or directly competitive products produced by Philippine industry (Submit samples (if possible), brochures, specifications and catalogues.)

All grades produced by JGSPC are marketed locally and worldwide under the brand name EVALENE®. JGSPC currently produces 7 commercial LLDPE grades, all for films applications.

Please see attached Appendix 5 on brochure of JGSPC's current grades, with corresponding specifications and applications identified.

- 3.4 Explain how the products produced by the Philippine industry are like or are directly competitive with the imported products, including physical characteristics, tariff heading, tariff duty, end use, methods of manufacture and marketing system.

If the products you manufacture are not identical to the imported products, please give details and explain how you consider that they closely resemble or are substitutable with the imported products. Describe any differences in nature or end-use between the imported products and your product.

JGSPC's current and upcoming LLDPE resin products are produced using two of the world's most widely-used PE process technologies, and as such are similar and substitutable with other imported LLDPE resin products, especially those used for film applications.

Please see attached Appendix 11 for a description of the LLDPE products JGSPC produces, its physical characteristics, tariff headings, tariff duties, method of manufacture and marketing.

By 4Q 2020, JGSPC will start to operate its third PE line using US- based Chevron Phillips MarTECH ADL™ PE production technology. The line, which has a rated production capacity of 250 kTA, will be able to produce bimodal, metallocene, and bimodal metallocene LLDPE resins, for which currently there is no local production. The new PE line will have an initial planned gradeslate of 6 new grades for LLDPE, thereby bringing the total number of LLDPE grades to 13 by end-2020.

Please see attached Appendix 12 for a description of the LLDPE products JGSPC will be producing by end-2020 onwards.

**4 SOURCE/S OF THE IMPORTED PRODUCT**

For this section, all analysis of LLDPE importations have been referenced against raw data sourced from the Bureau of Import Services (BIS). Please see attached Appendix 13 for the raw imports data from BIS.

**4.1 Name the countries of export of the imported product.**

Please see attached listing of countries that have exported LLDPE into the Philippines from 2015 to 2019 (Appendix 14).

**4.2 Provide the names and addresses of the overseas producers and/or exporters supplying the imported products.**

Please see attached listing of suppliers that have exported LLDPE into the Philippines from 2015 to 2019 (Appendix 15).

**4.3 Give the names and addresses of any known importers of the imported products and describe the nature of their business, e.g. wholesaler, retailer.**

Please see attached listing of importers that have imported LLDPE into the Philippines from 2015 to 2019 (Appendix 16).

**4.4 Indicate when the imported products began causing injury.**

As a result of the increasing import volume of lower priced competitor products, the local company's financial performance started to struggle from 2017 onwards.

**INJURY**

In order to investigate claims of serious injury or threat thereof, the Bureau of Import Services must have evidence showing:

- \* The increased volume of imports of the product under consideration
- \* The impact of the increased imports on the Philippine market
- \* The economic impact of the increased imports of the product under consideration on the Philippine producers.

All information provided to support claims of injury unless specifically requested must cover the last five (5) years immediately preceding the date of the protest. If the application was submitted on the second semester of the current year, the information shall cover the previous five (5) years and the period of the current year for which statistics are available.

**NON-CONFIDENTIAL VERSION**  
**APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY**  
**CONFIDENTIAL**

It is important for applications to show a causal link between the increased imports of the product under consideration and the alleged injury. For example, a decrease in local production and sales may be causally linked to an increase in imports of the imported product. You may believe that although your industry is not currently suffering injury, there will be injury if the importation of the product under consideration is not stopped. Your application will then be based on threat of injury.

When the Bureau of Import Services makes a determination of threat of injury it does so on the basis of guidelines set down in Section 12 of RA 8800 and its implementing rules and regulations.

A determination must be based on facts, not merely on allegation, conjecture or remote possibility. The change in circumstances which will create a situation in which the increased imports of the product under consideration will cause injury must be clearly foreseen and imminent.

In considering the injury factors set out in RA 8800, the Bureau will take account of the following key factors among others, in determining that a threat of injury exists:

- \* The likelihood of substantially increased imports evidenced inter alia by existence of letters of credit, supply contract, award of a tender or irrevocable offer
- \* The exporters' capacity to increase exports in the Philippine market
- \* Inventories of the products being investigated
- \* Economic impact on Philippine producers.

None of these factors alone will necessarily give decisive guidance to the determination, but taken together, must lead to the conclusion that further increased exports are imminent and that, unless protective action is taken, serious injury could occur.

Your application should have enough information to permit the Bureau to assess the claims in terms of these guidelines.

In critical circumstances where a delay would cause damage which would be difficult to repair, and after a preliminary determination that increased imports are a substantial cause of, or threatens to substantially cause serious injury to the domestic industry, provisional safeguard measures may be imposed. If you think this situation applies to your industry, then you should request that provisional safeguard measures be imposed. You must also state the degree or extent to which the application of such provisional measures will help improve your present situation. Please provide also a statement on the impact to your industry if imports continue within the next sixty (60) days of the filing of the petition.

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

The Philippine industry through this safeguards application respectfully request for immediate imposition of provisional safeguard measures for LLDPE. From 2017 onwards, the industry has struggled against the increasing volumes of low-cost imports, owing to increasing overcapacity of certain low-cost producers worldwide. The local producer is currently expanding capacity further in response to increasing local market volume demand, but has been finding it difficult to compete for the past three years as the import volumes have surged and may continue to surge without the imposition of appropriate safeguards. This imperils not just the existing investments of the local industry but also its ongoing capacity expansion.

## 5 INCREASED IMPORT VOLUME

Please see attached tabulation of LLDPE importations by volume and value from 2015 to 2019 (Appendix 17).

### 5.1 State quantities of imports of the imported product.

**Figure 4. Import Volume per Year**

YEAR	LLDPE (MT)	REMARKS
YTD 11M 2019	119,807	Volumes sorted from available BIS data
2018	104,318	
2017	87,789	
2016	91,067	
2015	81,688	

### 5.2 State dollar value of imports of the imported product.

**Figure 5. Import Value per Year (USD)**

YEAR	LLDPE (USD)	REMARKS
YTD 11M 2019	133,898,495.49	Volumes sorted from available BIS data; Imports Value using declared Customs Value
2018	107,572,085.43	
2017	109,252,255.99	
2016	112,840,883.26	
2015	109,517,493.00	

**Figure 6. Import Value per Year (PhP)**

YEAR	LLDPE (PHP)	BSP EXCHANGE RATE (PHP/USD)	REMARKS
YTD 11M 2019	6,935,377,369.48	51.80	Converted using average BSP Exchange Rate for given period
2018	5,664,899,841.87	52.66	
2017	5,506,720,097.75	50.40	
2016	5,359,091,569.99	47.49	
2015	4,983,356,954.84	45.50	

**Figure 7. Import Value per Unit per Year**

YEAR	LLDPE (USD/MT)	LLDPE (PHP/MT)	REMARKS
YTD 11M 2019	1,117.62	57,887.85	Volumes sorted from available BIS data; Imports Value using Declared Customs Value
2018	1,031.19	54,303.92	
2017	1,244.49	62,727.00	
2016	1,239.10	58,847.68	
2015	1,340.68	61,004.90	

For both items on this page, please provide these details for the most recent five (5) years available, if possible by month or by quarter and for each country from which imports are being sourced. This information may be available from the National Statistics Office or the Bureau of Customs.

## 6 ECONOMIC IMPACT

Complete the following injury summary for domestic sales of the like or directly competitive product for the most recent five (5) years available, if possible by month or by quarter.

Table should show the consolidated figures of all the producers by or for whom this application is made. Please state if the table covers different accounting years, and if so, identify the different accounting years for each producer.

### **Injury Summary**

Accounting Period

Sales Volume

Revenue

Cost of Production

Gross Profit

Selling and Admin.

Earnings Before Interest and Tax (EBIT)

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

**Per Unit:**  
Revenue  
Cost of Production  
Gross Profit  
Selling and Administration  
EBIT

Please see attached financials for JGSPC's LLDPE from 2015 to 2019 (Appendix 18).

**Figure 8. Domestic LLDPE - Sales Volume and Value - 2015 - 2019**

YEAR	SALES VOLUME (MT)	SALES REVENUE (PHP)	AVERAGE SELLING PRICE PER UNIT (PHP/MT)
CY 2019		Confidential	
CY 2018			
CY 2017			
CY 2016			
SP 2015			
FY 2015			

*Note: Average Selling price includes Local Freight Cost.*

**Figure 9. Domestic LLDPE - Cost to Produce - 2015 - 2019**

YEAR	PRODUCTION VOLUME (MT)	PRODUCTION COST (PHP)	PRODUCTION COST PER UNIT (PHP/MT)
CY 2019		Confidential	
CY 2018			
CY 2017			
CY 2016			
SP 2015			
FY 2015			

**Figure 10. Domestic LLDPE - Selling and Administration Cost - 2015 - 2019**

YEAR	SELLING AND ADMINISTRATION COST (PHP)	SELLING AND ADMINISTRATION COST PER UNIT (PHP/MT)
CY 2019	Confidential	
CY 2018		
CY 2017		
CY 2016		



**NON-CONFIDENTIAL VERSION**  
**APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY**  
**CONFIDENTIAL**

SP 2015	
FY 2015	

**Figure 11. Domestic LLDPE - Cost of Goods Sold - 2015 - 2019**

YEAR	COST OF GOODS SOLD (PHP)	COST OF GOODS SOLD PER UNIT (PHP/MT)
CY 2019	Confidential	
CY 2018		
CY 2017		
CY 2016		
SP 2015		
FY 2015		

**Figure 12. Domestic LLDPE - Gross Profit - 2015 - 2019**

YEAR	GROSS PROFIT (PHP)	GROSS PROFIT PER UNIT (PHP/MT)
CY 2019	Confidential	
CY 2018		
CY 2017		
CY 2016		
SP 2015		
FY 2015		

**Figure 13. Domestic LLDPE - EBITDA - 2015 - 2019**

YEAR	EBITDA (PHP)	EBITDA PER UNIT (PHP/MT)
CY 2019	Confidential	
CY 2018		
CY 2017		
CY 2016		
SP 2015		
FY 2015		

**Figure 14. Domestic LLDPE - EBIT - 2015 - 2019**

YEAR	EBIT (PHP)	EBIT PER UNIT (PHP/MT)
CY 2019	Confidential	
CY 2018		
CY 2017		

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

CY 2016	
SP 2015	
FY 2015	

Complete the following cost of production of the like or directly competitive product under protest for the most recent five (5) years available.

Raw Materials  
Conversion Cost

Specify  
Direct Labor  
Factory Overhead  
Variable Expense  
Fixed Expense

**Figure 15. LLDPE Production Cost per MT - 2015 - 2019**

COST COMPONENTS	FY 2015	SP 2015	CY 2016	CY 2017	CY 2018	CY 2019
Unit: PhP/MT						
Confidential						

Please see attached breakdown of production cost per unit for JGSPC's LLDPE from 2015 to 2019 (Appendix 19).

## 6.1 OUTPUT

6.1.1 Provide details of any decline in the industry's output of the like or directly competitive product for the Philippine market for the last five (5) years.

Following its record high production of \_\_\_\_\_ in 2017, JGSPC's production volumes had to be drastically reduced by 51% to \_\_\_\_\_ in 2018 owing to negative impact to gross profit. By 2019, while production volumes were marginally increased by 6%, losses were almost double than the previous year's.

Please see JGSPC LLDPE production volume from 2015 to 2019 (Figure 9).

## 6.2 RAW MATERIALS USAGE

6.2.1 Indicate the utilization for each major raw material used for production of the like or directly competitive product.

The primary raw material component for HDPE are the olefin ethylene and comonomers butene and hexene, which contributes ~95% of average overall raw material cost, while the remaining 5% of cost are on catalysts and additives. On a per product basis, the raw materials usage will depend on the specific grade of LLDPE product. JGSPC secures a Formula of Conversion from the Department of Science and Technology (DOST) for its various LLDPE products, which specifically shows the breakdown of raw material usage and wastage per product grade.

Please see attached Formula of Conversion showing the raw material utilization of JGSPC for its various LLDPE grades (Appendix 20).

**6.2.2 State whether the specific raw material is imported or locally produced.**

The primary raw material ethylene is mainly sourced from the upstream naphtha cracker operated by JG Summit Olefins Corporation (JGSOC), JGSPC's affiliate company which started operations in November 2014. The secondary raw materials, the comonomers hexene-1 and butene-1, are 100% imported, as well as the other raw materials such as additives and catalysts.

### **6.3 SALES**

Please see accompanying summary of information regarding JGSPC sales and financials, as well as market and imports information for LLDPE, from 2015 to 2019 (Appendix 21).

**6.3.1 Provide details of any decline in the industry's sales of the like or directly competitive product for the last five (5) years.**

Please refer to Figure 8 for the table showing JGSPC domestic sales for LLDPE, by volume and value, from 2015 to 2019, and as also indicated in Appendix 21.

**6.3.2 Explain any lost sales due to direct competition from the imported product.**

Since 2017, JGSPC has been steadily losing substantial sales volumes from its existing customers, due to increase in volume of importations of competing products that are being sold at much lower prices, even lower than JGSPC's own cost to produce and sell.

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

**6.3.3 Give copies of any correspondence or cancelled orders from the industry's customers showing they are buying the goods from other sources.**

Please see attached LLDPE imports of JGSPC customers from 2015 to 2019, and their corresponding LLDPE purchases from JGSPC for the same period (Appendix 22).

**6.3.4 Provide a schedule of volume and value of export sales over the most recent five (5) years available, if possible by month or by quarter.**

**Figure 16. LLDPE Exports - Sales Volume and Value - 2015 - 2019**

YEAR	SALES VOLUME (MT)	SALES REVENUE (PHP)
CY 2019		Confidential
CY 2018		
CY 2017		
CY 2016		
SP 2015		
FY 2015		

Please see attached performance of JGSPC export sales for LLDPE, from 2015 to 2019 (Appendix 18).

#### **6.4 MARKET SHARE**

**6.4.1 Provide evidence of the size of the Philippine market, preferably by volume, but otherwise by value, for the last five (5) years.**

**Figure 17. LLDPE Market Size - 2015 - 2019**

YEAR	IMPORTS VOLUME (MT)	JGSPC DOMESTIC SALES (MT)	TOTAL VOLUME (MT)	JGSPC SHARE (%)
CY 2019	119,807			
CY 2018	104,318			
CY 2017	87,789			
CY 2016	91,067			
CY 2015	81,688			

Please see attached estimation of LLDPE market size from 2015 to 2019 (Appendix 23).

**NON-CONFIDENTIAL VERSION**  
**APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY**  
**CONFIDENTIAL**

- 6.4.2 Compare the market share of domestic industry with the share held by imports over the most recent five (5) years where data is available.

Please refer to estimation of LLDPE market share of JGSPC from 2015 to 2019 in Figure 17.

## **6.5 PRICES**

- 6.5.1 Outline the extent to which the increased imports have affected domestic prices for the most recent five (5) years, where data is available. Provide supporting documents e.g. price lists, invoices, decline in average unit ex factory prices, increases in costs and any information on your pricing policy and history.

To help protect its market share, JGSPC as much as possible tries to adopt import parity, however by doing so JGSPC is heavily disadvantaged as import prices have been consistently lower than the cost to produce and sell.

Please see attached comparison of JGSPC costs versus import prices (Appendix 24).

## **6.6 PROFITS**

- 6.6.1 Explain how the gross and net profit on the domestic sales of like or directly competitive product have been affected. This explanation should be consistent with changes in gross and net profit shown on page 13 above.

The low prices of imported LLDPE have affected the gross profit on the domestic sales of locally-produced LLDPE. In order to compete and defend its market share, the Philippine producer is forced to adopt a policy of import parity pricing, and as such is forced to sell its products at a price below its cost to produce and sell plus a reasonable margin to recover investment.

Please see attached JGSPC gross profit on LLDPE products from 2015 to 2019 in Figure 12.

## **6.7 PRODUCTIVITY**

- 6.7.1 Show how productivity has been affected in the most recent five (5) years, monthly or quarterly if possible. Remember to state the basis used for measuring productivity (eg. Production per worker, or per period etc.)

With reduced production volumes in the past three years, the productivity per person is shown to be reducing year on year. However, the local petrochemical industry continues to hire skilled workers, such as engineering or science or technical-vocational graduates, thus contributing to reducing the need for these skilled workers to find overseas employment. Despite weakening production, continuous hiring is important to ensure that there is sufficient buffer for the current operational requirements, plus some pre-hiring of those to be trained for the upcoming new builds, which will start to be operational in 2020.

**Figure 18. Production Efficiency Per Employee - 2015 - 2019**

YEAR	DIRECT LABOR	PRODUCTION (MT)	EFFICIENCY/ UNIT/ EMPLOYEE
CY 2019			
CY 2018			
CY 2017			
CY 2016			
CY 2015			

Please see attached Appendix 21 on labor and productivity for LLDPE products from 2015 to 2019.

## **6.8 RETURN ON INVESTMENTS**

**6.8.1** Show return on shareholders' funds or return on assets, or a similar appropriate measure of return on investment, in terms of net profit for the most recent five (5) years available.

Due to negative earnings for the past three years specifically for LLDPE products, the local producer is currently struggling to provide positive returns to shareholders coming from LLDPE sales.

Moreover, JGSPC already has under construction an additional 250 kTA PE plant, whose financial viability is currently imperiled if the low priced imports of LLDPE were to continue.

**6.8.2** Provide details of how any allocation of shareholder's funds or assets has been made to like or directly competitive product.

In 2017, JGSPC decided to proceed with the construction of a new PE plant, which uses a different technology that is also capable of producing bimodal, metallocene and bimodal

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

metallocene LLDPE, which currently are not part of the existing JGSPC gradeslate.

This was decided in part to capture markets currently not served by JGSPC and the other local producer, but also to help improve costs of production by using a new and more efficient production technology.

## 6.9 USE OF PRODUCTION CAPACITY

6.9.1 State the industry's production capacity for the most recent five (5) years available, if possible on a monthly or quarterly basis, for the like or directly competitive product.

Explain the basis for this assessment, e.g. machine capacity, number of shifts, and state the units of measurement, for example, tons, meters, liters.

JGSPC's combined production capacity for PE is 320 kilotons per annum (kTA). This is the combined capacity for HDPE and LLDPE, as the two 160 kTA PE units are swing reactors that can produce both types of resins.

By 4Q 2020, JGSPC is expanding its production capacity to 570 kTA with the addition of the new 250 kTA PE Plant, also capable of producing both HDPE and LLDPE.

6.9.2 What has been the industry's capacity utilization rate for the periods specified above?

**Figure 19. LLDPE Capacity Utilization - 2015 - 2019**

YEAR	INSTALLED CAPACITY (MTA)	DOMESTIC PRODUCTION (MT)	TOTAL UTILIZATION (%)
CY 2019			
CY 2018			
CY 2017			
CY 2016			
CY 2015			

*Note: JGSPC operates 2 x 160 kTA PE plants, both of which can produce HDPE and LLDPE. NPCAC's 250 kTA plant likewise is also a swing facility that can produce both HDPE and LLDPE.*

In trying to maintain some market commitments, the local producer has tried to produce and sell LLDPE despite the poor financial returns that have started to be experienced even from the start-up in 2014 onwards.

**NON-CONFIDENTIAL VERSION**  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

Please see attached JGSPC capacity utilization for LLDPE from  
2015 to 2019 (Appendix 21).

## 6.10 INVENTORIES

- 6.10.1 Provide details on the effect of increased imports of the product under consideration on the volume and value of inventories of the like or directly competitive products in absolute terms and relative to sales and domestic production for the most recent five (5) years.

**Figure 20. JGSPC LLDPE Finished Goods Inventory - 2015 - 2019**

YEAR	INVENTORY VOLUME (MT)	INVENTORY VALUE (PHP)
CY 2019		Confidential
CY 2018		
CY 2017		
CY 2016		
SP 2015		
FY 2015		

As there has been a deliberate decision to cut production volumes in order to minimize losses since 2017, remaining inventory year on year has been kept below 10,000 MT.

## 6.11 OTHER ADVERSE EFFECTS

- 6.11.1 Please give evidence to support claims of injurious effects (actual or potential) in any of the following areas for the most recent five (5) years:
- \* Cash flow - specify cash inflows and cash outflows
  - \* Employment
  - \* Wages
  - \* Growth
  - \* Ability to raise capital
  - \* Investments

The negative financial status of Philippine industry has made it increasingly difficult to get financing for its modernization, expansion and operational requirements. Cash flow has been affected because of the lower returns on sales. Philippine industry has been unable to increase



**NON-CONFIDENTIAL VERSION**  
**APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY**  
**CONFIDENTIAL**

the wages up to global standards because of the negative financial situation. The inability to increase wages makes it more difficult for Philippine industry to hold on and retain its more important technical personnel.

## **6.12 OTHER CAUSES OF INJURY**

Please comment on factors other than the imported product that have injured, or are injuring the industry. These factors could include:

- \* Reduction in demand or changes in the pattern of consumption
- \* Restrictive trade practices of, and competition between, overseas and the Philippine producers
- \* Developments in technology
- \* The export performance of the Philippine producers.

1. US and Middle East petrochemical plants are heavily cost-advantaged versus Asian petrochemical plants

- The main raw material for all PE, including LLDPE, is ethylene, which is primarily derived from either naphtha cracking or ethane cracking. US and Middle East crackers typically use ethane, a plentiful resource in both regions, as the feedstock for their ethylene and PE, while Asian and European crackers on the other hand typically use either domestic or imported naphtha. In the case of the upstream cracker operated by JG Summit Olefins Corp., from which our ethylene is sourced from, the feedstock is mostly imported naphtha, as local refinery production is insufficient in supply and quality for the cracker's needs.
- However, naphtha crackers are very much cost-disadvantaged on ethylene costs compared to ethane crackers. Thus, exporters of LLDPE, especially those coming from ethane-producing countries, are able to drop their prices much lower than domestic pricing, and still with ample margin space to absorb the duties and be sold lower than or at parity with local pricing.

2. The US shale gas boom has led to an oversupply of PE, which is primarily intended for export and is expected to flood Asian markets.

- Major petrochemicals players such as Dow and ExxonMobil are at the forefront of US expansions. Almost all new ethane crackers are integrated with downstream PE, some of which target LLDPE as the main PE product. The integration towards PE resins is in response to ensuring that the end-products are those that can be more easily sold into the world market, rather than ethane and ethylene which are gases that require specialized vessels to be traded. As such, US PE exports have been rapidly ramping up since 2017.

3. The current US-China trade war has caused displacement of usual trade flows, giving rise to increased exports into the Philippines.
- Due to the current US-China trade war ongoing since 2018, the massive volumes of US PE originally intended to supply China is now forced to enter other markets, and thus the normal trade patterns are disrupted. Along with the increasing presence of US and Middle East sourced imports, Asian producers have also started to heavily trade into the Philippines, at prices competing also against low-priced US and Middle East imports, all of which have been taking away from the local producer's market share.

### 6.13 IMPORTS BY THE INDUSTRY

If the industry has imported the subject product in the past five (5) years please provide:

- \* Full description of the product
- \* Details of each shipment (including dates of importation, supplier, country of origin, volume and value (FOB and CIF).
- \* An explanation why the industry has imported the subject product.

JGSPC imports competitor LLDPE resins to produce the heavy duty bags to be used for packaging the resins. This enables JGSPC to maximize available raw materials as well as reactor and extruder space for the production of saleable products, rather than for producing resin intended for its own packaging requirements.

Please see attached listing of JGSPC purchases of imported LLDPE resins by volume and value from 2015 to 2019 (Appendix 25).

Please see attached product data sheets for the LLDPE products imported by JGSPC (Appendix 26).

## 7 SAFEGUARD MEASURES SOUGHT

- 7.1 Provide a statement on the form and duration of the safeguard measures you would like to be implemented by the government to assist your industry.

The local industry seeks a safeguard of **PhP 15,000/MT or USD 300/MT** to be applied immediately and for a period of **10 years**, to all **imported LLDPE resins** being brought in from all sources, using tariff codes **3901.10.12, 3901.10.92, 3901.40.00 and 3901.90.90**

## **8 ADJUSTMENT PLAN**

- 8.1 Provide a statement on the adjustment plan or set of actions that the domestic producers will undertake for the purpose of improving their competitiveness and adopting to the new market conditions.

### **Short to Medium Term (Present up to 10 years)**

JG Summit Petrochemical Corporation (JGSPC) is currently undertaking or plans to undertake the following projects and initiatives to help optimize existing assets, ensure the viability of upcoming investments and improve competitiveness versus products for which safeguards are being sought.

#### **A. Improve Economies of Scale and Competitive Advantage**

##### **1. New 250,000 MTA PE Plant**

- Currently ongoing construction is an additional 250 kTA PE plant that will be able to produce both HDPE and LLDPE, using US-based Chevron Phillips MarTECH ADL™ PE production technology. This capacity, in addition to currently existing 320 kTA, will bring JGSPC's combined PE production capacity to 570 kTA, in an effort to match projected local market demand in the short to medium term. As the petrochemical complex itself already exists and has many of its utilities outside battery limits available or requiring minimal modification to accommodate increase in capacity, the production economies of scale are improved as well as overall costs to produce and sell.
- In addition, use of the MarTech ADL™ PE production technology will allow JGSPC to produce higher value PE products, such as bimodals and metallocenes, currently not produced in its existing PE plants, enabling JGSPC to cover a wider range of HDPE applications currently served by imported products, and increase its domestic market share.
- Status: Construction Ongoing
- Date Available: 4Q 2020

#### **B. Improve on Costs**

##### **2. Power – 100 MW Coal-Fired Power Plant**

- The petrochemical complex where the HDPE polymer manufacturing plants are located currently source its power requirements primarily from its own diesel generators and secondarily from the grid. With power costs making up most of the variable cost, it is imperative to find ways to improve on both reducing the power costs and reducing power consumption. To this end, JGSPC plans to put up a 100 MW coal-fired power plant to

**NON-CONFIDENTIAL VERSION**

APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

provide for its own power requirements, using latest Circulating Fluidized Bed technology for cost efficiency and even reduced emissions as opposed to current diesel or bunker-fired generation.

- Status: Under evaluation
- Date Available: 2023

3. Raw Material Cost – Expansion of Cracker (source of ethylene)

- JGSOC's cracking facility is currently also undergoing expansion, again in an effort to improve economies of scale and to help build up capacity to match projected local market demand in the short to medium term. With the 50% increase in cracking capacity, larger bulk shipments of the feedstock naphtha and LPG are made possible, which in turn will translate into lower feedstock costs per MT for the production of ethylene, which is the primary raw material for HDPE.
- Status: Ongoing commissioning
- Date Available: 1Q 2020

4. Raw Material Costs – Additives and Catalysts Savings

- With the new PE project, JGSPC invested in a catalyst activator which will allow JGSPC to activate its catalysts onsite rather than offsite (abroad), including those catalysts used for its existing plants, thereby helping to reduce on catalyst activation costs.
- Status: Construction Ongoing
- Date Available: 4Q 2020
- JGSPC also continuously reviews its catalysts and additives portfolio in an effort to find suitable alternative additives at lower cost, as well as higher productivity/efficiency alternatives for its catalysts.
- Status: Ongoing

C. Improve Plant Reliability

5. Benchmarking Study on Reliability and Maintenance Performance

- JGSPC is undertaking a maintenance benchmarking study to analyze the primary factors impacting plant reliability and maintenance effectiveness, thereby helping identify key inefficiencies, to enable the maintenance team to focus efforts on specific and measurable improvements and leverage resources to where most needed.
- Status: Ongoing
- Date Available: 2Q 2020

D. Improve Production Efficiency and Output

6. Purchase of Operator Training Simulator (OTS)

- For the new PE plant, JGSPC has procured an Operator Training Simulator which is a system of networked computers programmed

**NON-CONFIDENTIAL VERSION**  
**APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY**  
**CONFIDENTIAL**

to mimic the actual plant processes and associated control systems. The plant model running in the OTS server is built using the same engineering data that is used in the actual plant, using graphics that are identical to those used in actual control systems. With simulated training, trainees can get operational experience in an environment that closely resembles the actual plant without posing any risk to the actual plant, thereby helping minimize incidence of plant upsets caused by human-related errors.

- Status: Ongoing purchase of software
- Date Available: 2H 2020

7. Advanced Process Control (APC) System

- Advanced Process Control (APC) is a technology that uses computers to predict the behavior of the plant and manage the changes that continuously happen in the plant. It attempts to mimic the actions of the most efficient and knowledgeable human control operator, except it works untiringly 24/7, 365 days in a year. JGSPC uses APC modules to help improve plant control stability, feed and production maximization, reduce energy consumption, and reduce variability in product quality,
  - o Upgrade for Existing PE Plants:
    - Status: Completed
    - Date Available: 2020
  - o New APC for New PE Plant:
    - Status: Data gathering to be initiated once new PE plant is operational
    - Date Available: Targeting 2024

NON-CONFIDENTIAL VERSION  
APPENDICES 12, 14, 15, 16, 18, 19, 20, 21, 22, 24, 25 ARE STRICTLY  
CONFIDENTIAL

**RA 8800 - SAFEGUARD MEASURES ACT**

**Application to Initiate a Safeguard Measures Investigation**

I hereby apply to initiate a safeguard measures investigation

on LINEAR LOW DENSITY POLYETHYLENE  
from ALL EXPORTING COUNTRIES

In support of this application I attach evidence of:

- (i) Volume of Increased Imports
- (ii) Injury to the industry; and
- (iii) A causal link between the increased imports and alleged injury.

and such information as is reasonably available to me in relation to the matters referred to in RA 8800, the Philippine Safeguard Measures Act.

This application is made by JG SUMMIT PETROCHEMICAL CORPORATION in behalf of the Philippine Industry producing like or directly competitive product to those subject to the application comprising a major proportion of the total Philippine production of those products.

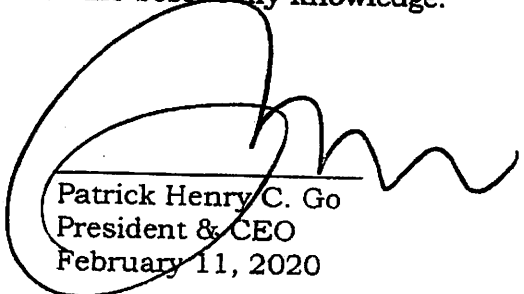
Furthermore, I certify that the information contained in this application are accurate and complete to the best of my knowledge.

Signature:

Name:

Position:

Date:



Patrick Henry C. Go  
President & CEO  
February 11, 2020