

フィリピン共和国  
電気製品試験技術向上・標準化計画  
事前調査団報告書

1997年7月

国際協力事業団

## 序 文

フィリピン共和国では、ラモス政権の下、「フィリピン 2000」のスローガンを掲げて、産業の育成・工業化の推進を実施しています。同国の工業化を推進するうえで、標準化活動は国内のみならず国際的な課題として不可欠なものですが、同国においては、工業標準化・認証制度(PS マーク制度)の基礎となる試験技術が不十分でした。

このような状況下、フィリピン政府は、同国内における規格の制定及び認証機関である貿易産業省(DTI)製品規格局(BPS)において製品試験を担当しているBPS試験所の試験機能強化を目的として、1992年5月に我が国に対しプロジェクト方式技術協力を要請しました。

これに対し、我が国は、消費者保護を重視したいとのフィリピン側の意向をも勘案し、試験分野のなかで電気を対象とし、そのうち照明器具・配線器具・電線にターゲットを絞った形で協力を実施することとし、「フィリピン工業標準化・電気試験技術」(協力期間：1993年8月～1997年8月)を開始しました。1997年2月に実施した終了時評価調査では、プロジェクト終了時まで当初の目標が達成されることが確認され、日本、フィリピン両国の関係者から高い評価を得ています。

フィリピン政府は、上記プロジェクトが電気分野の3製品に特化したものであることから、その成功をも踏まえ、広く家庭電器製品の試験検査機能をBPS試験所に付与することを目的として、プロジェクト方式技術協力を要請しました。

本要請を受け、これまでのBPSに対する協力実績を踏まえ、フィリピン側の協力要請内容を具体的に検討するためにフィリピン側と協議を行うため、1997年6月から7月にかけてフィリピン電気製品試験技術向上・標準化計画事前調査団を派遣し、フィリピン側と協議を行い、今後のプロジェクト協力の基本計画を作成し、その結果を協議議事録(M/D)等に取りまとめ、署名交換を行いました。

本報告書は、同調査団の調査結果を取りまとめたものです。

ここに、本調査団の派遣に関しご協力いただいた日本ならびにフィリピン両国の関係各位に対し深甚なる謝意を表するとともに、あわせて今後のご支援をお願いする次第です。

1997年7月

国際協力事業団

理事 安本 皓信



協議議事録 (M / D) 署名



協議議事録署名後の集合写真

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# 第1 事前調査団派遣の経緯

## 1 - 1 要請の背景・経緯

フィリピン共和国では、ラモス政権の下、「フィリピン 2000」のスローガンを掲げて、産業の育成・工業化の推進を実施している。同国の工業化を推進するうえで、標準化活動は国内のみならず国際的な課題として不可欠なものであるが、同国においては、工業標準化・認証制度（PS マーク制度）の基礎となる試験技術が不十分であった。

このような状況下、フィリピン政府は、同国内における規格の制定及び認証機関である貿易産業省（DTI）製品規格局（BPS）において製品試験を担当している BPS 試験所の試験機能強化を目的として、我が国に対しプロジェクト方式技術協力を要請した。

これに対し、我が国は、消費者保護を重視したいとのフィリピン側の意向をも勘案し、試験分野のなかで電気を対象とし、そのうち照明器具・配線器具・電線にターゲットを絞った形で協力を実施することとし、「フィリピン工業標準化・電気試験技術」（協力期間：1993 年 8 月～1997 年 8 月）を開始した。1997 年 2 月に実施した評価調査では、プロジェクト終了時までに当初の目標が達成されることが確認され、日本、フィリピン両国の関係者から高い評価を得ている。

フィリピン政府としては、上記プロジェクトが電気分野の 3 製品に特化したものであることから、その成功をも踏まえ、広く家庭電器製品の試験検査機能を BPS 試験所に付与することを目的として、今般、以下の項目におけるプロジェクト方式技術協力を要請してきた。

- (1) 家庭電気製品に対する試験技術の移転
- (2) EMC（電磁両立性）試験の技術の移転
- (3) 標準化・品質管理及び製品認証試験に関する研修の実施

## 1 - 2 調査目的

今回の調査では、これまでの BPS に対する協力実績を踏まえ、フィリピンの協力要請内容を具体的に検討するために先方と協議を行った。具体的には、専門家のリクルートの可能性など、日本側の国内支援体制に照らし合わせ、また機材供与の内容や予算面も検討したうえで協力分野の絞り込みを行い、今後のプロジェクト協力の基本計画を作成し、その結果を協議議事録（ミニッツ、M / D）等に取りまとめ、署名交換を行った。

## 1 - 3 調査内容・項目

- (1) プロジェクトの背景・実施体制の調査
  - ・フィリピンの国家政策、経済動向との整合性の確認

- ・ターゲットグループの確認
- ・所管官庁・実施機関の組織の確認、予算措置、カウンターパートの配置計画
- ・試験所スペースの増設・新建屋の建設計画の確認

(2) 要請内容の確認及び絞り込み

- ・要請各項目に関するニーズ、内容の確認、問題分析
- ・対象とする電気試験分野の特定
- ・地方展開に関する検討

(3) 具体的協力形態・内容の検討

- ・専門家派遣、研修員受入、機材供与、評価方法、ローカルコスト負担等

1 - 4 調査団の構成

氏名	担当業務	所属先
杉原 敏雄	団長・総括	国際協力事業団鉦工業開発協力部計画・投融資課課長
鬼束 忠人	技術協力計画	通商産業省工業技術院標準部国際規格課国際協力班班長
桜井 邦夫	技術移転計画	(財)日本品質保証機構総合製品安全本部申請代行課課長
鈴木 一弘	電気試験	(財)日本電気用品試験所企画国際部主任
勝又 晋	協力企画	国際協力事業団鉦工業開発協力部鉦工業開発協力第一課職員

## 1-5 調査日程

日順	月日	曜日	時間	行 程	場 所
1	6月25日	(水)	13:10 16:00 19:30	マニラ到着(JL-741) JICAフィリピン事務所での打合せ 調査団及びプロジェクトとの打合せ	JICAフィリピン事務所 Jesephine Restaurant
2	6月26日	(木)	9:45 11:00 14:00	日本大使館担当者との打合せ BPS(製品企画局)表敬(Botor副局長) NEDA、PIS及びPMS表敬訪問	日本大使館 BPS, Makati NEDA
3	6月27日	(金)	9:00 13:00	BPSTC視察 BPSとの協議	BPSTC BPSTC
4	6月28日	(土)		書類整理	
5	6月29日	(日)		書類整理 鬼束団員来比(JL-741)	
6	6月30日	(月)	10:30 11:00 13:00 19:00	BPS表敬(Motoomall局長) DTI表敬(Maglaya次官補) BPSとの協議 BPS主催による歓迎晩餐会	BPS, Makati BPS, Makati Via Mare at Ortigas
7	7月 1日	(火)	9:00 13:00	BPSとの協議 BPSとの協議	BPS, Makati BPS, Makati
8	7月 2日	(水)	9:00 13:00	M/Dに関する最終討議 M/Dに関する最終討議	BPS BPS
9	7月 3日	(木)	7:00 10:00 15:00 17:00 19:00	桜井団員帰国(NW-006) M/D署名 日本大使館報告 JICAフィリピン事務所報告 調査団主催による晩餐会	BPS Makati 日本大使館 JICAフィリピン事務所
10	7月 4日	(金)	14:30	帰国(JL-742)	

## 1-6 主要面談者

### (1) フィリピン側面談者

#### 1) NEDA (国家経済開発庁)

Ms. Ma. Norma Olga R. Cady      Public Investment Staff  
 Ms. Edna B. Capacillo              Project Monitoring Staff  
 Mr. Crisanto D. Gamponia        Trade, Industry and Utilities Staff

#### 2) DTI (貿易産業省)

Ms. Zenaida Cuison-Maglaya      次官補

3) BPS ( 貿易産業省製品規格局 )

Mr. Jesus L. Motoomull	局長
Ms. Cirila S. Botor	副局長
Ms. Norma C. Hernandez	Chief, Standards Conformity Division
Ms. Clarissa M. Oracion	Chief, Standards Development Division
Mr. Gerardo P. Panopio	Caretaker, BPS Testing Center
Mr. Victorino C. Abejero	Test Engineer, BPS Testing Center
Mr. Jerry T. Sayson	Test Engineer, BPS Testing Center
Mr. Antonio D. Panara	Test Engineer, BPS Testing Center

(2) 日本側面談者

1) 在フィリピン日本大使館

篠田 邦彦	二等書記官 ( 商務担当 )
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2) 「フィリピン工業標準化・電気試験技術プロジェクト」専門家

吉満 博	チーフ・アドバイザー
石田 和基	業務調整員
石崎 法夫	長期専門家 ( 標準化・認証 )
河村 輝夫	短期専門家 ( 品質管理 )
尾崎 正彦	短期専門家 ( 電気試験 )
田代 学	短期専門家 ( 校正 )

3) JICA フィリピン事務所

後藤 洋	所長
中澤 哉	所員



## 第2 調査結果

### 2 - 1 要請の背景

調査項目	要請内容、現状、疑問点等	協議結果
<p>1. 電気製品産業の状況 (1) 全体</p> <p>(2) 電気製品試験技術・標準化に対するニーズ</p>	<p>フィリピンの電気製品産業(家電製品)企業数は、セットメーカーが55社(うち17社が外資系)部品メーカーが12社(うち7社が外資系)となっている(1993年JETRO調べ)。</p> <p>生産台数については、正確な統計未入手。ほとんどの家電製品は国内市場用であると考えられるが、輸出製品としては、抵抗器、洗濯機、ラジカセ、電話機などがあげられる。</p> <p>雇用者数については、外資系企業の進出の影響もあり、1978年の雇用者数を100とした指数では、1993年で176.90となっている(BOI資料)。「電気機械産業」としての統計による従業員数は、1990年で約76,000人で、外資系企業の進出などから、更に増加しているとみられる。</p> <p>1996年の販売数は、扇風機約115万台、カラーテレビ約97万台、冷蔵庫約55万台、洗濯機約55万台などとなっている(国産品・輸入品合計、Philippine Electrical and Electronic Appliances Industry Foundation資料)。</p> <p>「フィリピン工業標準化・電気試験技術」で電線・照明器具・配線器具の3分野の試験技術をBPSに移転し、所期の目的を達成して終了する見込みだが、電気製品を総合的に試験する第三者試験機関は現在フィリピンには存在していない。一部の品目について、民間企業等で実施しているにとどまっており、電気製品について総合的に試験できる試験所の設立のニーズは高い。</p> <p>また、APECにおいて、電気製品の各国規格の整合化を図る動きがあり、フィリピンとして対応を迫られている。</p> <p>フィリピンとしての標準化にかかわる動きとしては、現在IECへの加盟をめざしている。</p>	<p>左記のほか、日系企業の進出状況等についても確認した。</p> <p>また、家電業界の市場規模は1995年末生産出荷ベースで約1,200億円近くに達している模様で、近年20～30%のペースで成長している。</p> <p>左記内容を確認した。</p> <p>以下確認した。</p> <ul style="list-style-type: none"> <li>・WTO-APECの協定に基づき、PNS規格をIEC規格と整合させるとの方針にも合致している旨確認した。</li> <li>・また、APECの電気・電子製品の安全に関する相互認証にも合致している。</li> <li>・更に、APECの標準化・品質に関する重点4品目として、食品、ゴム製品、プラスチックパイプと並び、電気・電子製品が含まれている。</li> </ul> <p>IECには本年8月に加盟の予定。</p>

## 2 - 2 プロジェクト概要

調 査 項 目	要 請 内 容、現 状、疑 問 点 等	協 議 結 果
2. プロジェクト名称	<p>要請書表題は以下のとおり。            (和)フィリピン工業標準化・試験・研修プロジェクト            (英)Industrial Standardization, Testing and Training Project in the Philippines</p>	<p>下記名称を提案して了解を得、M / D に記載した。            (和)フィリピン電気製品試験技術向上・標準化計画            (英)The Project on the Improvement of Electrical Appliances Testing and Standardization in the Republic of the Philippines</p> <p>要請は、電気試験、EMC、標準化・品質管理及び製品認証試験に関する研修の実施、の3分野での技術移転であったが、後述の技術移転分野に基づき、上記の名称を提案した。</p> <p>ただし、フィリピン側より、電子製品試験分野の実施について強く要請され、当方は聞き置いたが、今後の検討により同分野の実施が可能になった際は、「電子製品試験」の文言もプロジェクト名に加えるようフィリピン側から要請があり、その旨 M / D に記載した。</p>
3. 実施機関 (1) 技術協力窓口	<p>国家経済開発庁            (NEDA : National Economic Development Authority)</p>	<p>「フィリピン 2000」との整合性、本件プロジェクトの自立発展性等について NEDA より説明を受けた。地方展開については、ニーズはあるものの、本件プロジェクトでの対応には必ずしもこだわらない旨のコメントがあった。また、BPS の新建屋建設計画について、NEDA から予算管理省 (DBM) へサポートレターを出している旨の発言もあった。</p>
(2) 主管官庁	<p>貿易産業省            (DTI : Department of Trade and Industry)</p>	<p>産業振興政策のなかで、電気製品試験実施の必要性や、BPS 組織強化の必要性について発言があった。DTI の組織図を M / D に添付した。</p>
(3) 実施機関	<p>貿易産業省製品規格局            (BPS : Bureau of Product Standards, DTI)</p>	<p>プロ技スキームの概略について説明した。            BPS は DTI 内の Consumer Welfare Group に属し、規格の制定、認証、製品試験、試験所認証等を所掌している旨確認した。BPS、BPSTC の組織図を M / D に添付した。</p>

調査項目	要請内容、現状、疑問点等	協議結果
(4)プロジェクト・サイト	<p>現在、サイトについては以下の2つの案がフィリピン側より提案されている。</p> <p>a. 現行サイトの利用 BPS 試験所 科学技術省 (DOST : Department of Science and Technology) 金属工業開発研究センター (MIRDC : Metals Industry Research and Development Center) の約 1,500 m<sup>2</sup>をプロジェクト・サイトとして 1999 年 8 月まで賃借している。 場所はマニラ首都圏タギック町ビクータン (マニラ中心部より 15 キロ)。 現在、本件プロジェクトの実施に関し、BPS は、現行のサイトに加え、これに隣接する約 300 ~ 500 m<sup>2</sup>を賃借すること並びにサイト契約を延長することも検討しており、MIRDC 側も応じる用意があるとの報告が寄せられている。</p> <p>b. 新建屋建設 BPS 側は本部も含めた新庁舎・試験所の建設も計画している。計画の概要は以下のとおり。 ・場所 マニラ首都圏ケソン市 フィリピン大学構内 ・広さ 賃借総面積 15,000 m<sup>2</sup> ・工期 未定 1996 年 11 月 13 日付で、DTI 長官名でフィリピン大学学長あてに土地賃借に関する要請レターが出状されている。 しかし、新庁舎・研究所が完工するのは早くとも 1998 年度第 4 四半期 ~ 1999 年度第 1 四半期と思われる。また、本件プロジェクトに関する建屋と設備費として当初 BPS は 450 百万ペソ (約 2,250 百万円) を要求していたが、確保されたのは 150 百万ペソ (約 750 百万円) であったとの報告がなされている。 なお、この予算は、一般予算ではなく、Foreign Assisted Fund という外国援助の受入機関に対して配分される特別予算であり、日本側からプロジェクトの実施について正式な文書がないと BPS に配分されないとのこと。</p>	<p>プロジェクトは現行サイトの賃貸契約の延長・スペースの増設により実施したいとの発言がフィリピン側からもあり、その旨 M / D に記載した。 ユーティリティーの整備の必要性についても説明し、理解を得、M / D に記載した。</p> <p>新建屋建設は、プロジェクトの実施場所の関係にかかわらず実施する予定であり、協力期間中に新建屋建設が完了した場合、サイトを移転したい旨の発言もあった。当方より、移転の際は日本側関係者に事前に相談するよう申し入れ、フィリピン側も了解し、その旨 M / D に記載した。</p> <p>新試験所建設予算の承認については、DBM (予算管理省) が承認したのち、上下両院の承認により実施されるもので、日本側の協力のいかんにかかわらず建設する計画であること (ただし、日本側の協力が仮にない場合には予算確保が大幅に減額される) 完工時期については未定であること等について説明があった。</p>

調 査 項 目	要請内容、現状、疑問点等	協 議 結 果
<p>4. 責任者</p> <p>(1) 総括責任者</p> <p>(2) 実施責任者</p> <p>5. 協力期間</p>	<p>「フィリピン工業標準化・電気試験技術」と同様に、以下のとおり。</p> <p>BPS 局長</p> <p>BPS 試験所長</p> <p>要請書では5年間でされている。</p>	<p>左記を確認し、M / D に記載した。</p> <p>我が国側が事前検討した協力範囲に基づき、3年間との提案を実施したのに対し、フィリピン側より、可能であれば5年間の協力期間としてほしいとの要望があった。</p> <p>今回持ち帰り、検討課題とした各分野への対応を検討したうえで、適正な協力期間を設定する。</p>
<p>6. プロジェクト内容</p> <p>(1) 国家開発計画との整合性</p> <p>(2) 技術移転分野</p>	<p>「中期開発計画」(1993～1998年)のなかで、輸出振興、国内産業の体質改善、民間投資環境の整備が具体的な経済政策となっている。更に、「フィリピン2000」構想で、2000年までのNIES入りをめざしている。</p> <p>(要請書上は以下のとおり)</p> <p>a. 電気製品試験の確立 安全性と、APECに関連した優先度から、熱機器、モーター機器、電子機器が対象。現在フィリピンでは、電気・電子機器の試験を実施する第三者検査機関が存在しない。なお、非公式に聴取したところ、優先度は、電熱器、モーター機器、電子機器の順となっている。</p>	<p>「フィリピン2000」におけるローカル製品の国内での競争力の強化と、規格不合格製品のダンピング防止に合致している旨確認した。また、WTO-APECの協定に基づき、PNS規格をIEC規格と整合させるとの計画方針にも合致している旨確認した。更に、APECの電気・電子製品の安全に関する相互認識にも合致しており、また、APECの標準化・品質に関する重点4品目として、食品、ゴム製品、プラスチックパイプと並び、電気・電子製品が加わっている。</p> <p>電気製品試験については、我が国側の事前検討に基づき、フィリピン側が表明した優先順位に従い、IEC No. 335を取り上げ、電熱器、モーター機器のうちフィリピンで強制規格となっている製品の試験を優先的に実施することとし、機材設置スペースも考慮したうえで暫定的な試験実施規格をM / Dに記載した。電子機器等、IEC No.335以外の対応が必要となる製品に関しては、フィリピン側が強く要請したため、我が国側は専門家のアベイラビリティや供与機材の規模・予算的制約を調査したうえでその可能性を検討する旨M / Dに記載した。</p> <p>a-1 電気製品のうち現在非強制となっている品目についての試験 a-2 電気試験機器の校正 a-3 APECの電気・電子製品の安全に関する相互認識に基づき、IEC No. 65による電子製品の試験(化学試験等の材料試験も含む)</p>

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	<p>b. 電磁両立性(EMC)試験設備の確立 EMC及び電磁妨害(EMI)試験設備は現在フィリピンには存在しない。EMC試験設備の設立により、フィリピンで初めてEMC、EMIに対応できる機関となる。</p> <p>c. 産業向けの研修 製品試験、認証、品質管理、標準化各分野におけるトレーナーの育成を実施する。</p>	<p>EMC(代替案としてのEMIを含む)は、機材費で約10億円(EMIの場合も機材費約2億円+建設費約4億円)を要するといわれており、我が国の予算上の問題もあり、また、現時点でのフィリピン側のニーズにも疑問がある。よって、今次プロジェクトでは対応しないこととし、M/Dに記載した。</p> <p>研修については、セミナーを可能な範囲で実施し、我が国側が引き続き専門家のリクルートの可能性を検討するとの我が国側の方針に対して、フィリピン側からは、「工業標準化・電気試験技術」の終了時評価調査における課題のひとつとされた継続的に不良品を出した企業に対するアドバイスについての実施についても要請があった。我が国側としてはその必要性は認めるものの、専門家のアベイラビリティ等について検討が必要である旨回答した。</p> <p>また、標準化分野でAPEC/ASEANの規格整合化の活動のなかで策定中の工業標準化長期計画に基づいて協力を実施して欲しいとの要望もあり、本プロジェクト活動のなかでの位置づけ、専門家のアベイラビリティ等について検討することとした。</p> <p>既にBPSで実施しているセミナー・研修コースについて確認し、M/Dに添付した。</p> <p>(3)~(6)については、「電気製品試験」の文言に加え、「電子製品試験」が検討の結果本プロジェクトで実施できるのであれば当該箇所に追記して欲しいとの要望がフィリピン側からあり、その旨M/Dに記載した。</p>
(3)プロジェクトの上位目標	(特に記載なし)	フィリピンの電気製品の信頼性が向上する。
(4)プロジェクトの目標	(要請書上は以下の内容がプロジェクト目標として記されている) フィリピンの工業製品の品質向上を図り、輸入品に対する競争力強化と海外市場での品質の信頼性を確保すること。	BPSが電気製品分野において適切な試験・技術支援サービスを提供できるようになる。
(5)成果	(特に記載なし)	<ol style="list-style-type: none"> <li>1 電気製品試験実施のための資機材が整備・維持管理される。</li> <li>2 カウンターパートにより主要な電気製品試験が実施されるようになる。</li> <li>3 試験所の運営管理がより効率的に行われる。</li> <li>4 電気試験・標準化に関する技術支援が実施される。</li> </ol>

調 査 項 目	要請内容、現状、疑問点等	協 議 結 果
(6)活動	(特に記載なし)	<ul style="list-style-type: none"> <li>1-1 施設整備計画を策定し、計画に沿って実行する。</li> <li>1-2 機材仕様書を作成する。</li> <li>1-3 業者を入札、選定する。</li> <li>1-4 機材を据え付ける。</li> <li>1-5 施設と機材を維持管理する。</li> <li>2-1 電気製品試験技術に関するカウンターパートの技術力を把握する。</li> <li>2-2 電気製品試験の技術移転計画を作成する。</li> <li>2-3 カウンターパートに電気製品試験の技術移転を実施する。</li> <li>2-4 電気製品試験の技術移転の実施成果を評価する。</li> <li>3-1 試験所の運営に関する内部規定等を作成する。</li> <li>3-2 内部規定を運用する。</li> <li>3-3 内部規定の見直しを行う。</li> <li>4-1 既存のセミナーを見直す。</li> <li>4-2 フィリピンの電気製品関係者のニーズに合ったセミナーの実施計画を作成する。</li> <li>4-3 セミナーの教材を準備する。</li> <li>4-4 セミナーを実施する。</li> <li>4-5 セミナーを評価する。</li> </ul>

2 - 3 日本側投入

調 査 項 目	要請内容、現状、疑問点等	協 議 結 果
<p>7. 専門家派遣</p> <p>(1) 長期専門家</p> <p>(2) 短期専門家</p>	<p>要請書上の専門家の人数・分野</p> <p>チーフ・アドバイザー、業務調整、電気試験(家庭電器製品)、EMC 専門家(各1名、計4名)</p> <p>試験所管理、研修のための標準化・品質管理及び製品認証、電気試験、EMC</p>	<p>(我が国のODA 予算の現状、プロ技として対応し得る規模について説明し、先方の理解を得た)</p> <p>チーフ・アドバイザー、業務調整員のほか、電気試験分野で対応する方針であることを提案し、M / D に記載した。 フィリピン側から、更に、APEC / ASEAN の規格整合化の活動のなかで策定中の工業標準化長期計画に基づき、標準化分野に関する長期専門家の要請もあり、聞き置き、M / D に記載した。</p> <p>電気試験分野、標準化等技術支援ほか必要に応じて対応する旨提案し、M / D に記載した。</p>
<p>8. 研修員受入</p>	<p>要請書上のカウンターパート研修の人数・分野</p> <p>a. 試験所管理 (3名)</p> <p>b. EMC (3名)</p> <p>c. 電気試験 (4名)</p> <p>d. アドミニストレーション (2名)</p> <p>e. トレーナー研修 (3名)</p>	<p>年間最高2～3名程度、以下の分野で受け入れる方針であることを提案し、M / D に記載する。</p> <p>a. 電気試験 b. 試験所管理</p> <p>ただし、フィリピン側から、既に本プロジェクトの実施に向けて15名の新規カウンターパート採用の予算を確保していることも踏まえ、できるだけ多くの研修員を受け入れてほしいとの要望があり、その旨 M / D に記載した。</p>
<p>9. 機材供与</p>	<p>要請書上の供与機材</p> <p>a. EMC、電気電子製品の試験検査機器</p> <p>b. 技術移転・研修機器 ビデオカメラ、編集機器、印刷機器</p> <p>c. データ処理機器 コンピューター、付属品、ソフトウェア</p> <p>d. 車両</p> <p>e. その他</p>	<p>プロジェクト内容に応じた必要最小限の対応となることを伝え、当方が準備した、フィリピンの法制上強制規格となっている IEC No.335 対応の電気製品試験に必要な機材リストを M / D に添付した。</p> <p>フィリピン側は、電気製品試験のうち、IEC No.335 対応で、現在強制となっていない製品の試験、また電子製品試験についても協力を要請し、当方は聞き置いた。機材面も含め、対応可能か、今後検討する。</p> <p>機材の詳細、レイアウト、ユーティリティの整備等について、長期調査で調査する方針であることを伝える。</p>

2 - 4 フィリピン側実施体制

調査項目	要請内容、現状、疑問点等	協議結果
10. 実施機関の組織	<p>1997年4月現在のBPSの人員は以下のとおり。</p> <p>(AT= Action Team)</p> <p>a. アドミニストレーション 6名</p> <p>b. AT-1 Standards Development 14名</p> <p>c. AT-2 Information Services on Standards 5名</p> <p>d. AT-3A Product Certification 20名</p> <p>e. AT-3B Quality System Certification 3名</p> <p>f. AT-4 Testing, Laboratory Accreditation 20名</p> <p>g. AT-5 Training Activities 2名</p> <p>h. AT-6 Production Services, Media relations 6名</p> <p>i. AT-7 Budget and Other Stall Services 2名</p> <p>j. AT-8 Special Product 2名</p> <p>k. AT-9 ISO Matters and BPS Quality System Document Control 2名</p> <p>BPS全体で合計82名、うちBPSTC20名。</p>	<p>左記の内容を確認し、組織図も含め、M / Dに記載した。</p>
11. 実施機関の予算	<p>BPS全体の予算は、1997フィリピン会計年度で30,598,000ペソ(約153百万円)、うちBPSTC予算は13,156,000ペソ(約66百万円)で前年比78%増。</p>	<p>1997年のBPS本部予算は約17百万ペソ、BPSTCの予算は約14百万ペソ。</p> <p>自己収入としては、試験・認証による収入は約13百万ペソ(1996年)ただし、これは国庫に上納されている。</p>
12. 実施機関の技術レベル等	<p>「フィリピン工業標準化・電気試験技術」では、当初計画を上回るカウンターパート・予算の投入がなされ、協力範囲(電線・電球・配線器具)で定めた試験実施規格に対する試験実施率は79%に達している。職員の技術レベルは一般的に高いといわれている。</p>	<p>1998年のプロジェクト予算は11百万ペソの予定(新建屋建設費・設備改修費は除く)MIRDCの試験所サイトの改修は1997年度予算で実施すること。</p>
13. 施設・設備	<p>現在はMIRDCの約1,500㎡を賃借してBPS試験所としている。本プロジェクトの実施にあたっては、賃貸契約の延長が必要となるだけでなく、取り上げる品目によっては給排水等ユーティリティーの整備が必要となる。</p> <p>更にBPS側は、MIRDCの隣接スペース(約300～500㎡)の本件プロジェクト・サイトとしての賃借を準備していると伝えられている。サイトを増設する必要がある場合、増設スペースのユーティリティー(空調、取り上げる品目によっては給排水等)の整備が必要となる。ユーティリティーの整備には概算約5百万円を要すると見込まれるが、フィリピン側はこれを負担する用意がある旨、非公式に表明している。</p>	<p>現BPSTCの拡張案(約300㎡)について聴取し、概略図をM / Dに記載した。現BPSTCの既存スペースも比較的余裕があり、今次協力の供与機材を収容するためには既存スペースだけで十分とも考えられるが、フィリピン側はいずれにしても拡張を実施したいとのこと。</p> <p>新規契約・契約延長・ユーティリティーの整備がいずれもフィリピン側の負担で実施されるべきことを確認し、M / Dに記載した。</p>



2 - 5 その他

調査項目	要請内容、現状、疑問点等	協議結果
<p>14. 長期調査の実施</p> <p>15. 他の外国援助機関等からの協力 (1) 我が国からの協力</p> <p>(2) その他の協力</p> <p>16. 他の試験所との役割分担・連携</p>	<p>開発調査として、「フィリピン共和国工業標準化・品質向上計画調査」を実施し、1990年1月にマスタープランを作成。1991年5月から1993年11月まで、個別派遣専門家として工業標準化アドバイザーを派遣。</p> <p>プロジェクト方式技術協力として「フィリピン工業標準化・電気試験技術」(協力期間：1993年8月～1997年8月)をBPSを実施機関として実施中。このプロジェクトは、ASEAN 諸国等の関係機関において標準化情報の交流を図る「プロジェクト連携促進事業」(1996年度より開始)の対象となっている。</p> <p>1997年度個別派遣専門家として、工業標準化・認証制度について要請される見通し。</p> <p>我が国からの他の援助としては、通商産業省との間で「ASEAN TQM プロジェクト」として、1995年から5年間にわたり、品質管理分野においてセミナー等が実施されている。</p> <p>品質管理分野において、EU と協力が行われている。</p> <p>更に、UNDP のスキームのなかで、「試験所認証」の分野で協力が行われており、オーストラリアから短期専門家が派遣されている。</p> <p>エネルギー省 (Department of Energy) FATL (Fuels Appliances Testing Laboratory) でエアコン、冷蔵庫等の試験を実施しており、他の数品目についても今後試験を実施する予定があるとの情報を入手している。</p> <p>一方、エネルギー省が今後 FATL では性能試験のみを実施し、安全試験は全面的に BPS で実施する旨の非公式情報も入手している。</p>	<p>事前調査以後、早い時期(できれば1997年度第3四半期まで、遅くとも1997年度第4四半期まで)に長期調査を派遣する方針であることを伝える。</p> <p>その際、供与機材の詳細やレイアウト、ユーティリティーの内容についても調査することを併せてフィリピン側に伝え、M / D に記載した。</p> <p>我が国以外からの協力について聴取した内容は以下のとおり。</p> <p>EU の協力は、1989年より、標準化分野における ASEAN Consultative Council for Standards and Quality の一環として実施されており、BPS に対し、コンピューター 18 台が供与されている。</p> <p>また UNDP のマレーシアへの援助の一環として、オーストラリア人による試験所管理のセミナーが2カ月にわたり BPS で実施されている。</p> <p>また、UNIDO・TQM プロジェクトとして、モデルカンパニーに対する TQM 活動を実施している。</p> <p>FATL は省エネルギーに関する調査・開発を実施している機関である。エアコン、扇風機、冷蔵庫のエネルギー効率試験を実施しており、安全試験を実施する BPS と役割が分かれている。以上の役割分担を確認し、M / D に記載した。</p>

調 査 項 目	要 請 内 容、現 状、疑 問 点 等	協 議 結 果
17. 業界団体との連携	電気製品関係の数団体が存在する旨の情報を入手している。	複数の業界団体が存在することを確認した。主に長期調査の際に、必要に応じ業界団体との連携等について調査する予定とした。
18. プロジェクトの地方展開	BPS が、標準化・認証制度について、定期的に「地方職員のための標準化セミナー」を実施している。 また、電気製品試験の受け付けはDTI の地方局で実施しているが、その体制整備が今後図られる必要がある。	DTI のリージョン・州事務所に配置されている Standards Officer に対して、セミナー・コンサルティング、BPSTC での研修を実施してほしい旨要望があり、当方で持ち帰り検討することとした。Regional / Provincial Standards Officer の役割について、M / D に記載した。
19. PDM		Project Design Matrix (PDM) の概要を説明し、フィリピン側の理解を得た。 なお、本件の PDM については、今次調査結果を踏まえ、次回の長期調査にて作成することとする。
20. 専門家の生活環境		特段の問題は認められなかったものの、近年の順調な経済成長に伴う生活物価の上昇は著しく、特に住居費が高騰している。

## 第3 調査団所見

### 3 - 1 調査概要

フィリピン国における工業標準化の分野では、フィリピン国工業製品の品質を向上させ、輸入品に対する競争力と他国からの信頼性を確保することを目的として、電気3分野(照明器具、電線、配線器具)における部品試験を中心とする「工業標準化・電気試験技術プロジェクト」を1993年8月から4年間の協力期間をもって実施中である。本年2月には同プロジェクトの技術移転状況等について日本、フィリピン両国の合同評価が実施された結果、「期待された成果はほぼ達成され、プロジェクトは成功した」と評価された。今次プロジェクトは、電気製品試験を主要技術移転対象とするもので、フェーズ2と位置づけられるものである。

本事前調査団は、関連施設の視察、フェーズ1専門家等との意見交換、及び貿易工業省製品規格局モトムール局長をヘッドとするフィリピン側関係者との協議を行ったが、これらを通じ、フィリピン側本件実施機関のマネジメント能力の高さ、人材の優秀さなど、今次プロジェクトの成功を期待させるものを実感した。

### 3 - 2 主要協議事項

#### (1) 技術移転内容について

##### 1) 校正

BPSが試験所認証制度に基づく試験機関としての体制を整えるためには、試験実施能力に加え、データの信頼性を得るために校正が不可欠な要素となる。現在のBPSは、校正の必要性は認識するものの、具現化するための校正機材、校正技術が整っていないのが現状である。

上記目的と現状から、フィリピン側より校正分野について本プロジェクトに含めることについて要請があった。

調査団としては、BPS側の要請は極めて妥当なものであると認め、本分野への対応について前向きに検討すべきと考える。対応可能とする範囲は、本プロジェクトに関する分野に絞ることとし、電圧、電流、電力、温度、抵抗、インピーダンスについてラボレベルの標準器(0.2級程度)が適正精度と考える。

##### 2) 電子機器試験

現時点では認証制度において電子機器について強制とはなっていないものの、近い将来実施するニーズが予測され、BPSとして実施能力を整備する必要があるとのことから、本分野についても含めてほしい旨要請があった。

本要請への対応については、必要とされる試験機器、電子試験分野専門家のアベイラビリティ等の観点から引き続き検討が必要と思われる。

### 3) EMC / EMI

APEC の Mutual Recognition Arrangement の関係から EMC をぜひ実施してほしい、段階的に機材を整備することとし、その一部でも実施できないかとの要請があった。調査団より、機材費が高額になること等の理由により含められない旨説明した。

### 4) 標準化分野の長期専門家派遣

標準化分野の長期専門家の派遣について要請があった。本プロジェクト活動のなかでの位置づけ、専門家のアベイラビリティ等について検討が必要であり、Take Note することとした。

### 5) 継続的に不合格品を出した企業に対するアドバイス

本件は、本年2月のフェーズ1プロジェクト終了時評価における課題でもあるが、今次プロジェクトに含めてほしい旨フィリピン側より要請があった。その必要性は認められるものの、具体的にどのような活動が考えられるのか、また専門家のアベイラビリティはどうかなどについて検討が必要であり、Take Note することとした。

### 6) 電気製品試験

本件については、先方が示した熱機器、モーター機器に関する優先順位に基づき、IEC No.335 に基づく試験項目のうちフィリピン国法令に定めた強制品目を中心に試験を実施する旨提言した。フィリピン側はこれを了解したが、現在非強制品目となっている一部品目についても、若干の機材を追加することにより実施可能なため、将来的なニーズも踏まえ協力してほしいとの発言があった。

本要請への対応としては、必要とされる試験機器等を検討したうえで実施の可能性を判断する必要がある。

## (2) 新建屋の建設及びプロジェクト・サイト

フィリピン側より BPS の新建屋に関し、日本側の援助のいかんにかかわらず建設する計画であること(ただし、日本側の援助がある場合にはより多額の予算確保の可能性はある) 完工時期は未定であることなどについて説明があった。これらの状況を踏まえ協議した結果、本プロジェクトのサイトについては、フェーズ1プロジェクト・サイト及び隣接する約300平方メートルの追加スペースにて実施することで合意した。

### (3) 協力期間等について

フィリピン側より、フェーズ1プロジェクトでの経験を踏まえ技術移転に要する期間を考慮すると、日本側提案の3年間では短すぎるので、可能であれば5年間の協力期間として欲しいとの要望があった。

今回持ち帰り検討事項とした校正、電子機器試験等への対応を検討したうえで、適正な協力期間を設定することとなる。

なお、フィリピン側より、例えば本分野におけるフェーズ3プロジェクトの実施の可能性についてNEDAと非公式に打ち合わせた結果、NEDAより、本分野について更なる協力を日本側に要請することは他の分野とのバランスの観点から困難であるとの回答があり、したがって、BPSとしては、現時点では本分野について更なる協力要請(例えばフェーズ3)は考慮しないとの説明があった。

## 3 - 3 その他

### (1) 組織、人員について

本件の実施に係る組織については、フェーズ1プロジェクトと同一の組織(BPS及びBPSTC)が実施機関となる。この組織のマネジメント能力については、フェーズ1プロジェクトで高く評価されているところであり、本プロジェクトでも同様の活動が期待される。

また、フィリピン側は、本プロジェクトのために15名のスタッフ(ほぼ全員エンジニア)の配置のための予算を確保済みとのことであり、この点からも本プロジェクトの実施にあたり、組織、人員面で特段の問題はないものと予想される。

### (2) 技術的側面について

フェーズ1の実績、今回の視察結果から判断し、本プロジェクトにおける技術移転実施上の問題は少ないものと思われる。その理由は次のとおり。

- 1) エンジニアが技術の習得に前向きである(BPSTC全体の印象)
- 2) P N S規格がI E C規格に整合しつつある(技術移転が容易)
- 3) 「フィリピン2000」など国家的な後押しがあり、前向きである(BPSの印象)

### (3) 設備、機材について

電気部品についての設備、機材は、規格試験を実施できる状況にあると思料される。また技術的にも、使用され、具合及びメンテナンス等の面から適切に維持、管理できていることが試験進行表から判断できる。

スペースの面からみると、現行のサイトは余裕があり、機材の搬入、試験品の移動、人の動

線からみても十分である。また、本プロジェクトで設置が検討されている設備機器として恒温チャンバーがあるが、現行のレイアウトを若干変更することにより設置可能と判断する。加えて、給水、排水の問題は、400 リットルの外置きタンクが地上 3 ~ 4 m の位置にあり、適切な水圧及び安定的な供給が確保できるものと考えられる。また、排水についても下水道にアクセスできる状況である。その他、スペースを広くとる機材としてはウォータースプラッシュがあるが、これも水回りを含めチャンバー付近に設置することができる。

本プロジェクトで計画されている他の機材については、保管棚、保管台等を準備することは必要としても、大きくスペースをとるものではない。本プロジェクトで計画されている対象品目は製品(洗濯機等)であり、試験品としての製品の保管場所を大きくとる必要がある。これに対しては、拡張されるスペースを活用することにより対応できるものと思われる。

電気設備については、現行の試験所内に設置されている配線ボードに空きが十分あり、給電設備も隣の建屋にあり、問題はない。

## 付 属 資 料

1 .ミニッツ

2 .要請関連書類

3 .フィリピン側からの入手資料

DTI 1995 Annual Report

Bureau of Product Standards パンフレット

Organization and Activities / BPS your partner in quality





1. ミニッツ

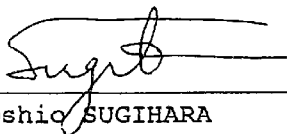
MINUTES OF DISCUSSIONS  
ON  
THE JAPANESE PROJECT-TYPE TECHNICAL COOPERATION  
FOR  
THE PROJECT ON THE IMPROVEMENT OF ELECTRICAL APPLIANCES TESTING  
AND STANDARDIZATION  
IN  
THE REPUBLIC OF THE PHILIPPINES

The Japanese Preliminary Study Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Mr. Toshio Sugihara, Director of Planning and Financial Cooperation Division, Mining & Industrial Development Cooperation Department, JICA, visiting the Republic of the Philippines from June 25 to July 4, 1997, for the purpose of clarifying the background, concept, and scope of the project proposal made by the authorities concerned of the Government of the Philippines (hereinafter referred to as "the Philippine side") and studying the feasibility of the Japanese Project-Type Technical Cooperation for The Project on the Improvement of Electrical Appliances Testing and Standardization in the Republic of the Philippines (hereinafter referred to as "the Project").

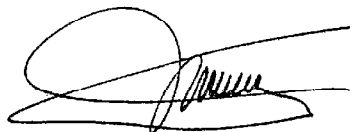
During its stay in the Philippines, the Team exchanged views and had a series of discussions with the authorities concerned of the Government of the Philippines.

As a result of the discussions, both sides reached a common understanding concerning the matters referred to in the document attached hereto.

Manila, July 3, 1997



Mr. Toshio SUGIHARA  
Leader,  
Preliminary Study Team,  
Japan International Cooperation  
Agency,  
Japan



Mr. Jesus L. MOTOOMULL  
Director,  
Bureau of Product Standards,  
Department of Trade and  
Industry,  
The Republic of the Philippines

ATTACHED DOCUMENT

1. Name of the Project

The Team proposed that the name of the Project be "The Project on the Improvement of Electrical Appliances Testing and Standardization in the Republic of the Philippines."

The Philippine side proposed that the Project also include electronic appliances. The Team took note of this proposal.

2. Implementing Agency of the Project

The Department of Trade and Industry (DTI) will be the overall responsible agency for the Project.

The Project will be implemented by the Bureau of Product Standards (BPS) of DTI.

The present organization charts of DTI, BPS and BPS Testing Center (BPSTC) are as shown in ANNEX 1-1, 1-2 and 1-3.

3. The Project Site

The Project Site is BPSTC located in the Metals Industry Research and Development Center (MIRDC) of Department of Science and Technology (DOST).

The Philippine side indicated, for the implementation of the Project, that they have prepared the extension of the duration of the contract of the current BPSTC site, and also a new contract to rent additional space adjacent to the current BPSTC site.

The address and telephone & facsimile numbers are as follows:

Address: BUREAU OF PRODUCT STANDARDS TESTING CENTER

MIRDC Compound,

Gen. Santos Avenue, Bicutan, Taguig, 1631 Metro Manila

Phone : 63-918-3206092

63-918-8706013

63-918-8706005

Fax. : 63-2-8904926



The Philippine side informed the Team of the Philippine Government's commitment to move the BPSTC site to a new building using the Government of the Philippines (GOP) funds in order to ensure proper operations and maintenance of BPS testing equipment. The Team commented that in case of transfer of the site, the implementing agency shall consult with the Japanese authorities concerned with the Project prior to making a decision.

#### 4. Administration of the Project

Director of BPS, as the Project Director, will bear overall responsibility for the administration and management of the Project. Chief of BPSTC, as the Project Manager, will be responsible for the implementation and technical matters of the Project.

The tentative organization chart for the administration of the Project is shown in ANNEX 2.

#### 5. Duration of Japanese Technical Cooperation for the Project

The Team proposed that the duration of the technical cooperation for the Project by the Government of Japan will be three (3) years from the date agreed by both sides in the Record of Discussions (R/D) to be concluded between JICA and the implementing agency.

The Philippine side, however, requested longer implementation of the Project, that is, five (5) years of Japanese Technical Cooperation for the Project. The Team commented that due to some additional technical transfer field which the Philippine side requested, the possibility and the duration needed for the technical transfer of that additional field will also be studied by JICA and discussed at the time of the Japanese Specialists for Supplemental Study.

#### 6. Provisional Master Plan of the Project

##### (1) Objectives of the Project

##### 1) Overall Goal

The reliability of the electrical\* appliances in the

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Philippines will be improved. (\*to be referred to Item 1. "Name of the Project")

2) Project Purpose

BPS will be able to provide appropriate testing and technical assistance service on electrical\* appliances. (\*to be referred to Item no.1. "Name of the Project")

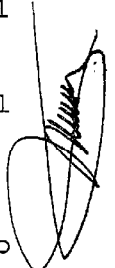
(2) Outputs and Activities of the Project

1) Outputs

1. The equipment related to electrical\* appliance testing is installed and maintained properly . (\*to be referred to Item no.1. "Name of the Project")
2. Testing of main electrical\* appliances will be able to be implemented by counterpart personnel (C/P). (\*to be referred to Item no.1. "Name of the Project")
3. Operation and management of the laboratory will be made more efficient.
4. Technical assistance related to electrical\* testing and standardization will be implemented. (\*to be referred to Item no.1. "Name of the Project")

2) Activities

- 1-1. Make facility refurbishment plan and implement as planned
- 1-2. Identify specifications of equipment
- 1-3. Implement tenders and select traders
- 1-4. Install and adjust equipment
- 1-5. Maintain facility and equipment
- 2-1. Study the actual situation related to technological capability of C/P
- 2-2. Make a technical transfer program related to electrical appliances testing
- 2-3. Implement technical transfer to C/P
- 2-4. Evaluate result of implementation of technical transfer to C/P



- 3-1. Establish internal codes for operation of the Center  
(management of personnel, equipment, data, etc.)
- 3-2. Put the codes into practice
- 3-3. Revise the codes
- 4-1. Study the actual situation related to present seminar
- 4-2. Prepare the implementation program of seminars in line with  
the needs of the people related to electrical appliances in  
the Philippines
- 4-3. Prepare text of seminars
- 4-4. Implement seminars
- 4-5. Evaluate seminars

(3) Project Cycle Management (PCM)

The Team explained the concept and outline of the PCM. The Team explained that the draft Project Design Matrix (PDM) will be formulated when the Japanese Specialists for Supplemental Study are dispatched, and it will be reviewed and discussed further by the time of the first Joint Coordinating Committee.

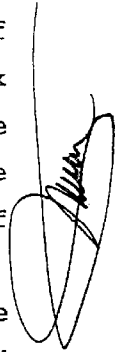
7. Provisional Fields of Technical Transfer

The technical transfer to the C/P of BPS will be made in the following fields. The Team stated that these fields need to be carefully examined among Japanese authorities in the light of the availability of experts and the scope of the technology transfer, which are thus subject to change.

(1) Electrical Appliances Testing

Both sides agreed that the fields of electrical testing of technical transfer to be put in practice is as shown in Annex 3, which was chosen in line with the priority put by the Philippine side and also in line with the study about the equipment to be needed to implement the testing. The item of appliances chosen is applied to IEC 335 Standards.

In addition to the above The Philippine side requested the following fields in the Project and The Team took note and



commented its possibility with their study about the cost of equipment and the availability of experts will be considered:

- A. to implement the electrical appliances testing in line with IEC 335 Standards as much items as possible
- B. to implement calibration of the electrical testing equipment
- C. to implement the electronic appliances testing in line with IEC 65 Standards including material testing such as chemical analysis, following APEC's mutual recognition arrangement of safety on electric and electronic appliances

(2) Technical Support Service

Technical support service will be made in the style of a seminar, supplementing the field of electrical appliances testing and also implemented in the field of standardization. Seminars and training courses currently conducted by BPS are shown in Annex 4. The word 'standardization' also includes quality control and certification activities.

The Philippine side requested to support to establish consulting service to companies which are not in compliance with standards on the electrical testing performed by BPSTC, and the Team took note.

(3) Electromagnetic Compatibility (EMC) / Electromagnetic Interference (EMI)

Although this item is requested by the Philippine side, the Team explained that EMC or EMI is not considered as the field of technical transfer in the Project, because the budget for equipment is too large to be allocated for project type technical cooperation program, even if it is implemented in 'open site' alternatively.



8. Measures to be Taken by the Japanese Side



(1) Dispatch of Japanese Experts

The following Japanese experts will be dispatched:

(Long-term Experts)

- 1) Chief Advisor
- 2) Coordinator
- 3) Expert on Electrical Testing

Expert on Electronic Testing was requested by Philippine side and will be considered by the Japanese side to be followed by their study about the cost of equipment and the availability of experts.

The Philippine side also requested the Team to dispatch Expert on Alignment of Standard and Other Activities Contained in Industrial Standardization Long Term Plan, in line with the requirement of APEC and ASEAN. The Team took note.

(Short-term Experts)

- 1) Electrical Testing
- 2) Technical Assistance such as field of standardization

Notwithstanding the above, both sides agreed that short-term experts would be dispatched as necessity arises.

(2) Training of Philippine C/P in Japan

The Team stated that a maximum of two (2) to three (3) Philippine C/P would be accepted for training in Japan each year during the cooperation period in the field of electrical appliances testing and standardization

The Philippine side requested to accept C/P for training in Japan as much as possible, because BPS is ready to assign approximately fifteen (15) new personnel in addition to the current staff as the C/P of the Project.

(3) Provision of Equipment

The Team explained that the minimum equipment to be needed for the implementation of technical transfer will be provided. The Japanese side explained their study about provision of equipment

based on implementation of the technical transfer of electrical testing indicated in ANNEX 3 as listed in ANNEX 5.

The Philippine side indicated, after their study of the list, that they would request the provision of equipment based on that list as proposed by the Team. However, the Philippine side also requested for the provision of equipment for other appliances as much as possible for the other electrical and electronic appliances listed in ANNEX 6.

The Team explained and the Philippine side agreed that the Japanese Specialists for Supplemental Study will study the provision of equipment in more detail and also the utilities needed to be prepared.

The Team also explained and the Philippine side agreed that the costs and responsibility necessary for domestic transport, installation and maintenance of the equipment and preparation of utilities should be borne by the Philippine side.

#### 9. Measures to be Taken by the Philippine Side

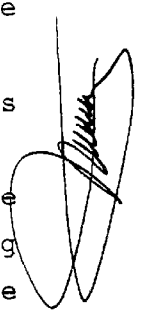
##### (1) Building and Facilities for the Project

To start the Project, the Philippine side will make available the buildings and facilities of MIRDC for the implementation of the Project. It is included that not only the extension of the duration of the contract of the current BPSTC site, but also a new contract to rent additional space adjacent to the current BPSTC site, and also the preparation of utilities of the additional space such as air conditions, water supply and sewage, etc.

Office space for Japanese experts equipped properly with office equipment such as phones and desks will be prepared before the commencement of the Project.

The existing BPSTC layout including the additional space is shown in ANNEX 7.

The Philippine side informed the Team of the Philippine Government's commitment to move the BPSTC site to a new building using GOP funds in order to ensure proper operations and maintenance of BPS testing equipment.





(2) Machinery, Equipment and Materials

The Philippine side will supply or replace at its own expense machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than those provided by the Government of Japan through JICA.

The list of existing machinery and equipment of BPSTC is shown in ANNEX 8. And the list of equipment having already been provided by JICA is shown in ANNEX 9.

(3) Assignment of Full-Time C/P

The Philippine side will provide the services of at least additional fifteen (15) Philippine C/P and administrative personnel for the implementation of the Project. The manpower complement of BPSTC is listed tentatively in ANNEX 10.

Should the allocation of C/P be changed for either personal or administrative reasons, the Philippine side will immediately take necessary measures to supplementarily assign an appropriate number of personnel as C/P for the Project.

(4) Local Costs

A necessary amount of the local costs by the Philippine side will be indispensable for the implementation of the Project. The Philippine side presented a tentative plan for the appropriation of local costs to implement the Project as shown in ANNEX 11.

The recent figures of the annual budget of BPS and BPSTC including income earned by themselves are shown in ANNEX 12.

(5) Privileges, Exemptions and Benefits to the Japanese Experts

The Philippine side will grant in the Republic of the Philippines privileges, exemptions and benefits to the Japanese experts and their families no less favorable than those accorded to experts of third countries working in the Republic of the Philippines under the Colombo Plan Technical Cooperation Scheme.



(6) Sustainability of the Project

The Philippine side will take necessary measures to ensure that the self-reliant operation of the Project will be sustained during and after the period of the Japanese technical cooperation, through the full and active involvement in the Project by all related authorities, beneficiary groups and institutions so that the technologies and knowledge acquired by the Philippine counterpart personnel through the Project will ultimately contribute to the economic and social development of the Philippines.

10 Demarcation in the field of electrical appliance testing between BPSTC and Fuels and Appliances Testing Laboratory (FATL) of Department of Energy (DOE)

The Philippine side introduced that FATL of DOE is conducting testing and certification related to energy conservation and 'Energy Efficiency Rating' for appliances such as air-conditioner, electric fan and refrigerator. On the other hand, as far as such appliances concerned, BPS is to be conducting safety testing. Items of electrical appliances testing implemented by FATL are as shown in Annex 13.

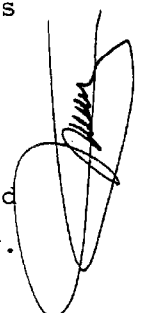
11. Extension to the local area of the Project

The Philippine side eagerly expressed to extend the Project for Regional or Provincial Standards Officers of DTI by implementation of seminars, consulting service or BPSTC's training program. The Team took note and detailed technical assistance in this field is to be considered.

The role and duty of Regional or Provincial Standards Officers of DTI are shown in Annex 14.

12. Joint Coordinating Committee for the Project

The Joint Coordinating Committee, composed of members appointed by both sides, will be established and held at least once a year. Its functions and compositions are described in ANNEX 15.



### 13. Joint Evaluation

The final evaluation of the Project will be conducted jointly by both sides through JICA approximately six months before the termination of the cooperation period in order to examine the level of achievement of the objective of the Project.

Other evaluation may be conducted as and when necessary during and after the cooperation period to better monitor the progress and sustainment of the objective of the Project.

### 14. Schedule of the Project

Both sides agreed to the Tentative Schedule of Implementation (TSI) for the Project as shown in ANNEX 16.

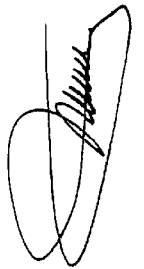
### 15. Other

- (1) Both sides agreed that the common language to be used in any activities of the Project should be English.
- (2) The Team explained and the Philippine side understood the nature and scheme of the Project-Type Technical Cooperation by the Government of Japan and also the current situation of Japan's Official Development Assistance.
- (3) The list of attendees in the discussions is shown in ANNEX 17.

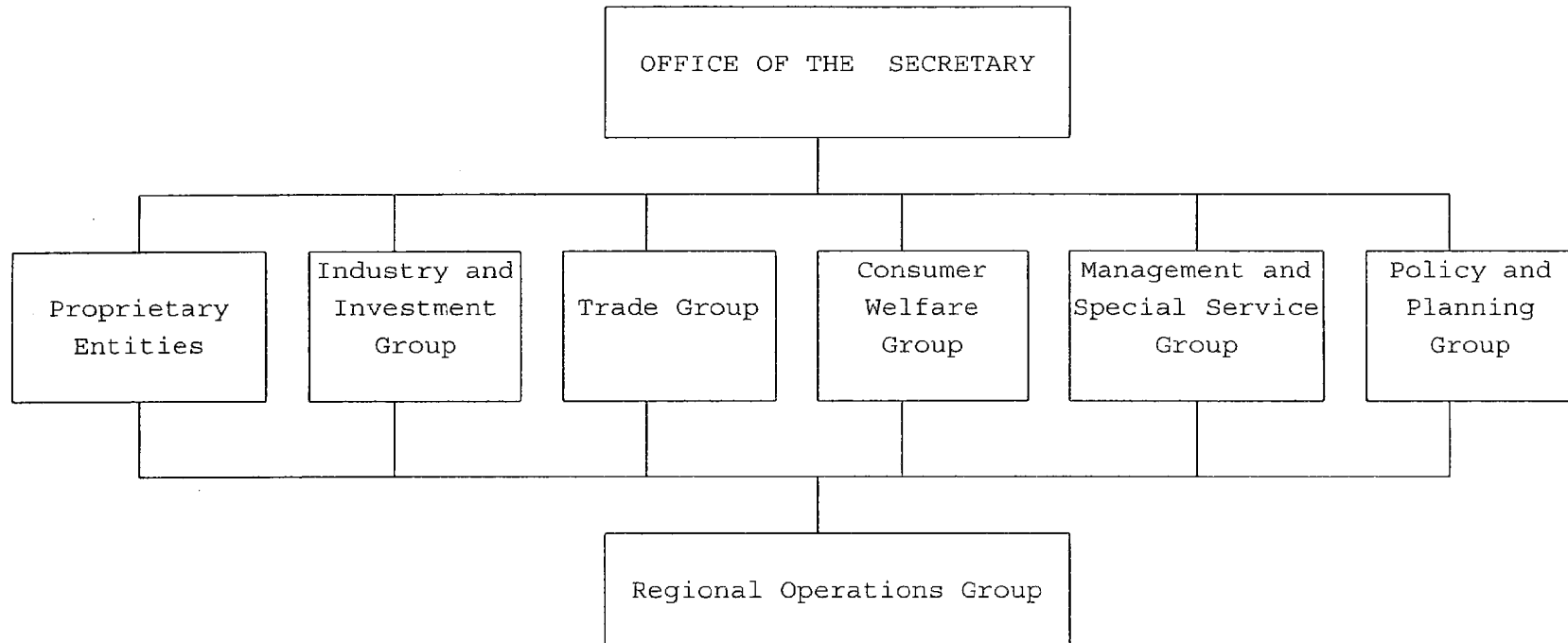


List of ANNEXES

- 1-1 DTI ORGANIZATION CHART
- 1-2 BPS ORGANIZATION CHART
- 1-3 BPS TESTING CENTER ORGANIZATION CHART
  
- 2 TENTATIVE ORGANIZATION CHART OF THE PROJECT
  
- 3 TENTATIVE TECHNICAL TRANSFER ITEMS OF ELECTRICAL APPLIANCES TESTING PREPARED BY THE TEAM
  
- 4 LIST OF SEMINARS AND TRAINING COURSES CONDUCTED BY BPS
  
- 5 TENTATIVE EQUIPMENT LIST PREPARED BY THE TEAM
  
- 6 ITEMS OF ELECTRICAL AND ELECTRONICS APPLIANCES TESTING REQUESTED BY THE PHILIPPINE SIDE
  
- 7 LAYOUT OF THE PROJECT SITE
  
- 8 LIST OF BPS EXISTING EQUIPMENT AS OF FY 1990
  
- 9 LIST OF EQUIPMENT IN BPSTC PROVIDED BY JICA (FY 1994-FY1996)
  
- 10 TENTATIVE SCHEDULE OF C/P ALLOCATION
  
- 11 TENTATIVE SCHEDULE OF BUDGET ALLOCATION
  
- 12 BPS (BPS MAKATI & BPSTC) ANNUAL BUDGET
  
- 13 DOE-FATL APPLIANCES TESTING CAPABILITIES
  
- 14 THE ROLE AND DUTY OF REGIONAL/PROVINCIAL STANDARDS OFFICERS OF DTI
  
- 15 FUNCTIONS AND MEMBERS OF JOINT COORDINATING COMMITTEE
  
- 16 TENTATIVE SCHEDULE OF IMPLEMENTATION (TSI)
  
- 17 LIST OF ATTENDANTS IN THE DISCUSSION

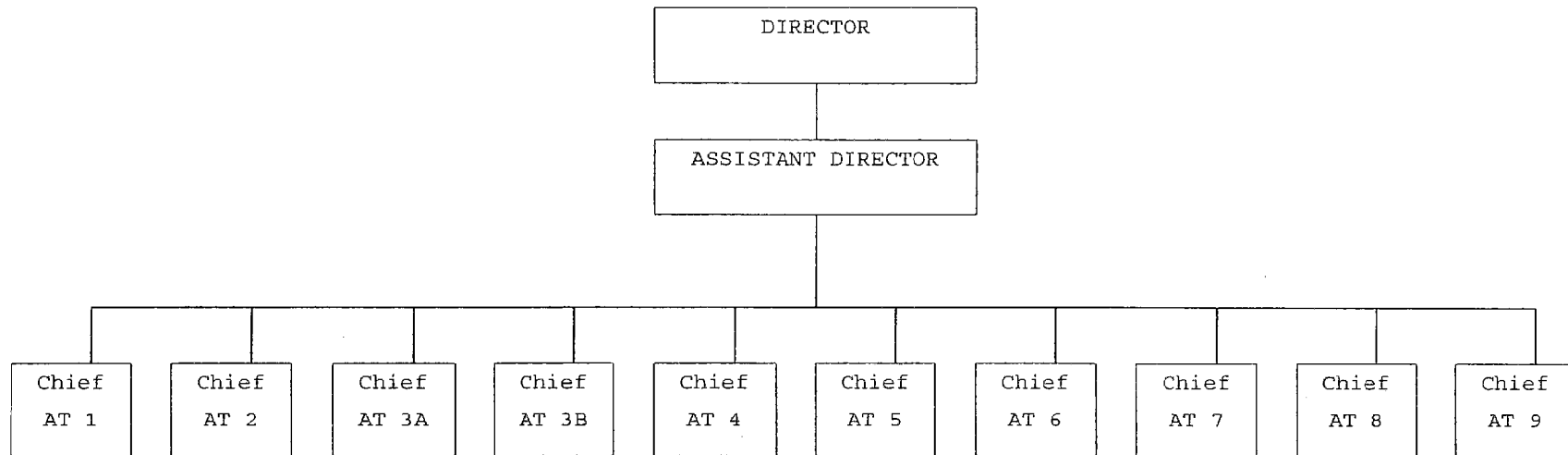


DTI ORGANIZATION CHART

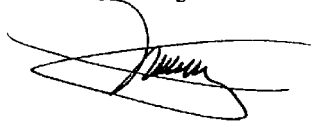


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BPS ORGANIZATION CHART

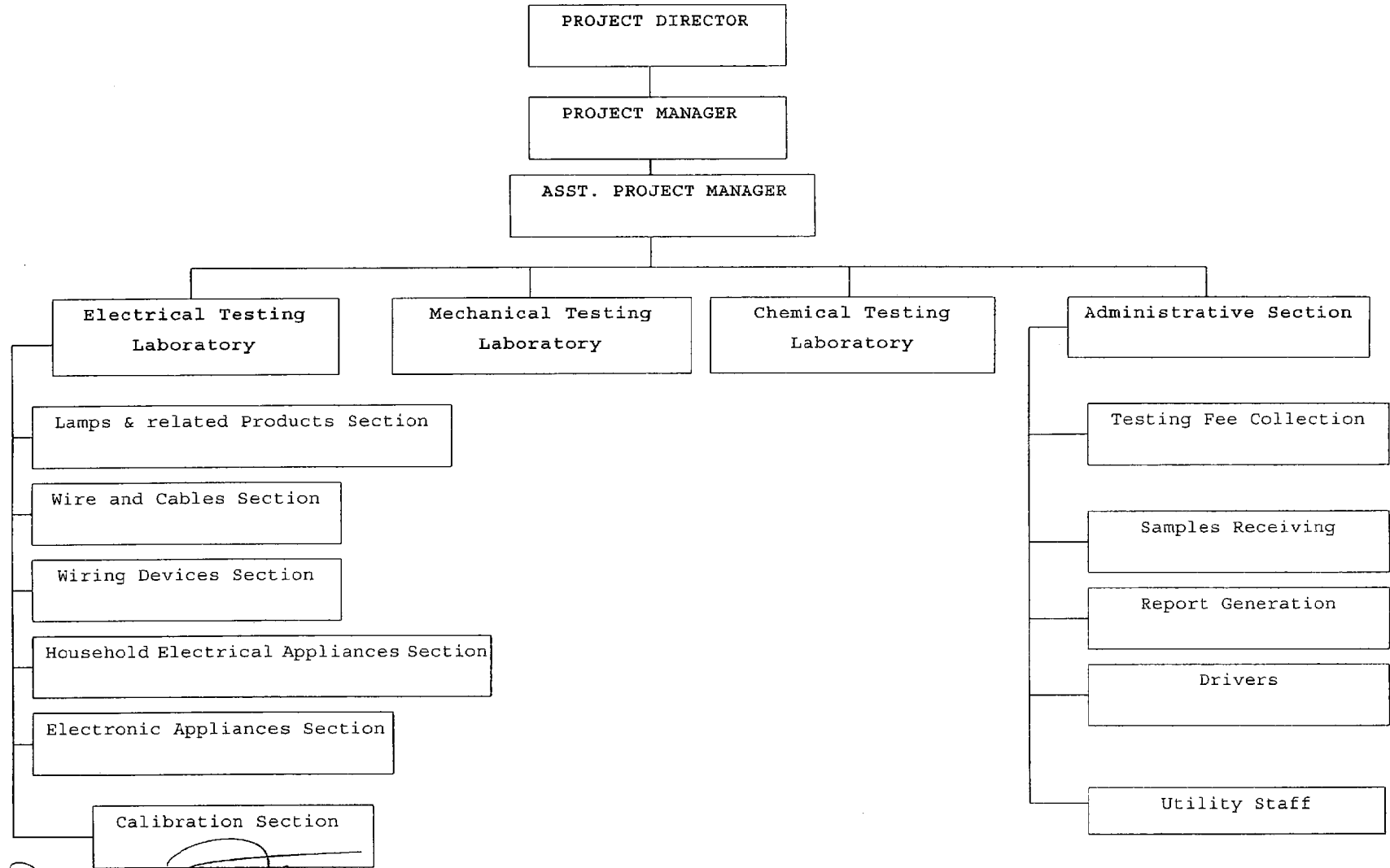


- |       |   |      |   |
|-------|---|------|---|
| AT 1  | Standards Development,<br>metrication and Personnel | AT 5 | Training on ISO 9000 and Related Activities,<br>Scholarship Committee |
| AT 2  | Information Services on Standards, Library, WTO/TBT | AT 6 | Production Services, Promotions and Media Related                     |
| AT 3A | Product Certification                               | AT 7 | Budget and Other Staff Services                                       |
| AT 3B | Quality System certification (Maintenance Scheme)   | AT 8 | Special Projects (APEC, ACCSQ, etc.)                                  |
| AT 4  | Testing and Laboratory Accreditation                | AT 9 | ISO Matters<br>and BPS Quality System Document Control                |

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BPS TESTING CENTER ORGANIZATION CHART

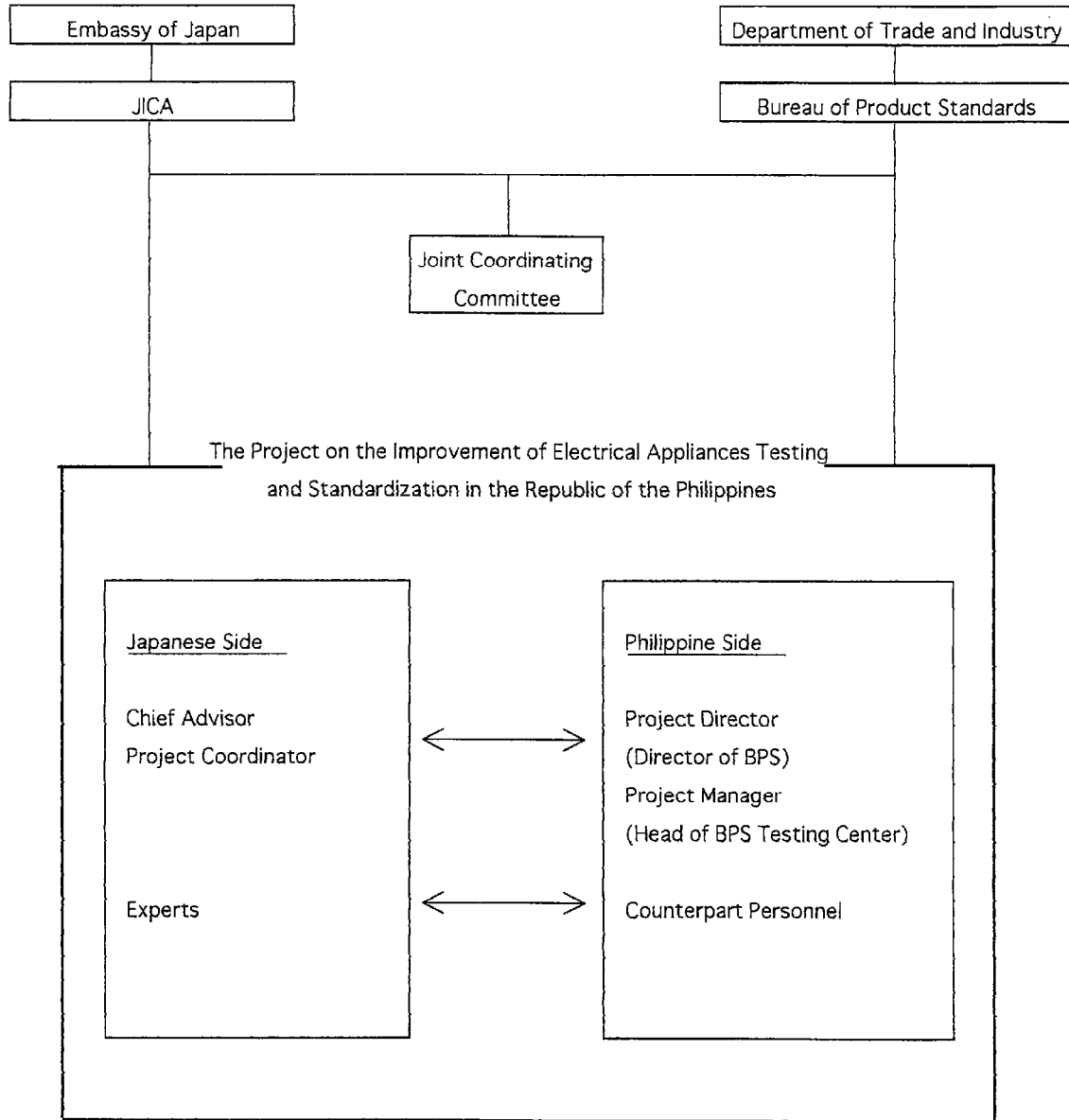
ANNEX 1-3



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TENTATIVE ORGANIZATION CHART OF THE PROJECT





TENTATIVE TECHNICAL TRANSFER ITEMS OF ELECTRICAL APPLIANCES  
TESTING PREPARED BY THE TEAM

## HEATING APPLIANCES

Appliances	Applicable IEC Standards
Electric Flat-Irons	335-2-3
Electric Rice Cooker	335-1
Electric Cooking Heating Plates	335-2-6
Electric Ranges	335-2-6
Electric Ovens	335-2-6
Electric Toasters	335-2-9
Other Electric Heating Appliances for Cooking Purposes	335-2-6
Electric Dryers	335-2-11

## MOTOR OPERATED APPLIANCES

Appliances	Applicable IEC Standards
Refrigerators	335-2-24
Freezers	335-2-24
Room Air Conditioners	335-2-40
Electric Washing Machine	335-2-7
Food Processors	335-2-14
Juice Blenders	335-2-14
Electric Juice Squeezers	335-2-14
Electric Water Coolers	335-2-24




## LIST OF SEMINARS AND TRAINING COURSES CONDUCTED BY BPS

NO	NAME OF SEMINARS AND TRAINING COURSES
1	ISO 9000 Quality Management System (QMS)
2	ISO 9000 QMS
3	ISO 9000 QMS ( in House)
4	BPS-US ASEAN Council Seminar on Product Safety
5	Seminar on Food
6	Orientation Seminar on BPS Functions and Objectives
7	Standardization of Optical Products
8	Seven habits of Highly Effective People
9	Standards Awareness Course on Pneumatic Tires
10	Seminar/Workshop on IECEE/CB
11	ISO 9000 QMS Awareness Course
12	Seven Habits of Highly Effective People
13	Seminar on Industrial Standardization
14	ISO 9000 QMS Awareness Course
15	Assessors/Lead Assessors Course in QMS
16	Laboratory Assessors Course
17	Standardization and PS Certification Scheme
18	DAO 9
19	BPS Lead Assessors Course on QMS
20	BPS PS/QS Training on Quality Audit (OJT)
21	ASEAN-Japan TQM Project
22	ISO 9000 QMS for Information Technology(IT)
23	Seminar/Workshop Cum Constancy on TQM for SMes
24	ISO 14000 EMS
25	ISO 9000 QMS Awareness & Documentation Course
26	Testing of Wire and Cables
27	Testing of Wiring Devices
28	Testing of Lamps & Related Products
29	Testing Techniques for Household Heating Appliances
30	BPS Laboratory Accreditation Program

## TENTATIVE EQUIPMENT LIST PREPARED BY THE TEAM

IEC Standard No. 335-1 General Requirements

Equipment	Quantity
Standard Test Finger	1
Test Pin	1
Test Probe	1
Tension Gauge	3
Storage Oscilloscope	1
Digital AC Power Meter	1
Temperature Indicator	3
Thermocouple (CA)	2
Thermocouple (IC)	1
Hot Line Coil Ohmeter	1
Leakage Current Tester	1
Dielectric Strength Tester	2
Oven/Humidity	2
Vertical Rain Apparatus	1
Splash Apparatus	1
Spray Apparatus	1
Insulation Resistance Meter	2
Thermal Cutout Apparatus	1
Stability Test Apparatus	1
Weight	1
Impact Test Apparatus	1
Cord Reel Test Apparatus	1
Flexing Test Apparatus	1
Torque Gauge	2
Earth Continuity Tester	1
Torque Driver	1
Outside Micrometer	1
Vernier Caliper	1
Ball Pressure Apparatus	1
Air Circular Oven	2
Hot Mandrel Apparatus	1
Glow Wire Test Apparatus	1
Needle Flame Test Apparatus	1
Tracking Test Apparatus	1
AC Voltmeter	3
AC Ammeter	5
DC Ammeter	1
AC Volt & Ammeter	1
Digital Multimeter	3

## IEC Standard No.335-2-3 Irons

Equipment	Quantity
Drop Machine	1

## IEC Standard No 335-2-6 Cooking Ranges, Cooking Tables, Ovens

Long Test Pin	1
Load for Rotating	1
Standard Test Pan	1

## IEC Standard No. 335-2-7 Washing Machines

Hot Water Equipment	1
Water Pressure Apparatus	1

## IEC Standard No.335-2-11 Tumble dryers

Temperature Probe	1
Water Pressure Apparatus	1

## IEC Standard No. 335-2-14 Electric Kitchen Machine

Standard Test Finger	1
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## IEC Standard No 335-2-40 Heat Pump, air conditioners and dehumidifiers

Built-in Chamber	1
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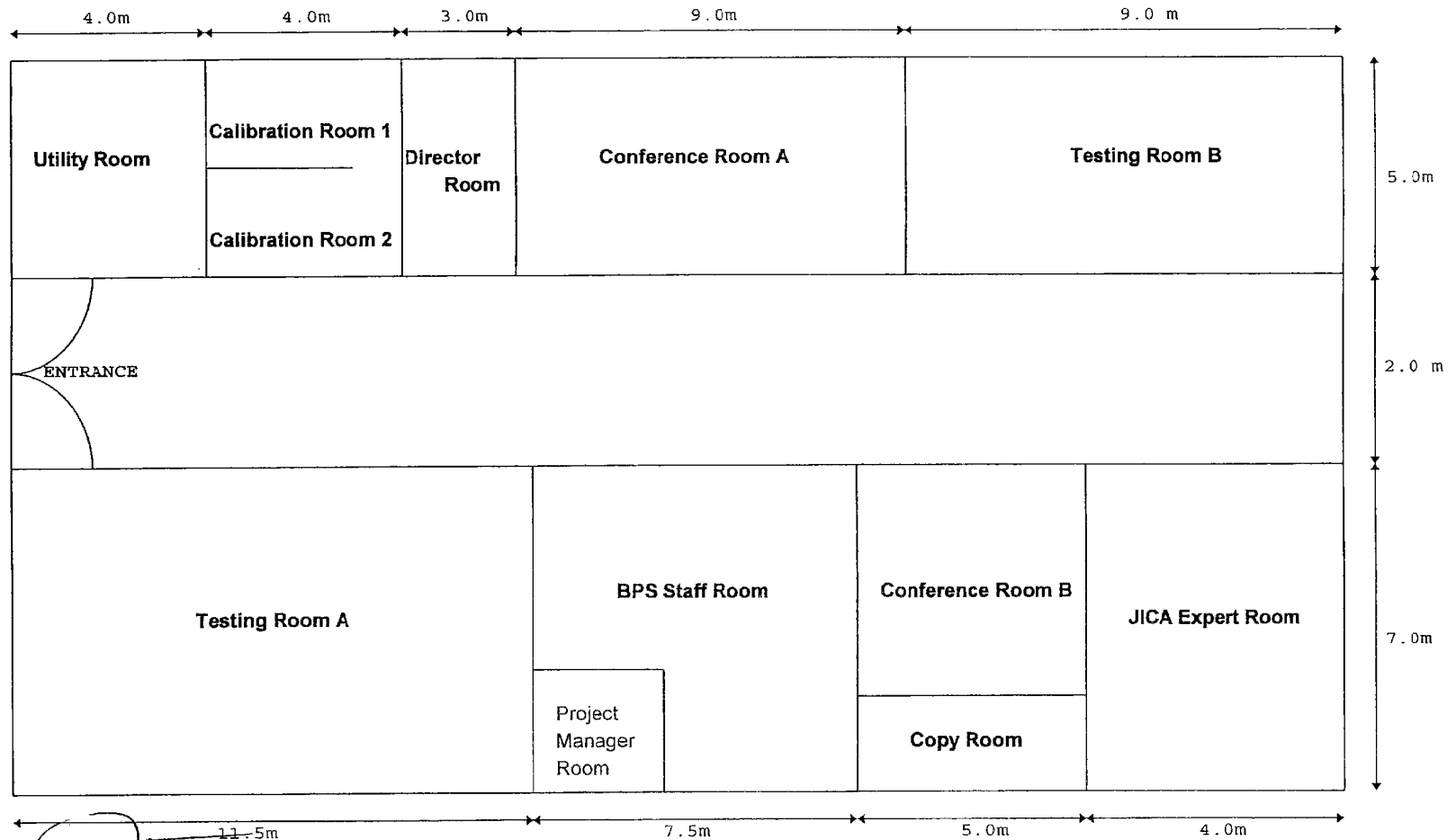

ITEMS OF ELECTRICAL AND ELECTRONIC APPLIANCES TESTING  
REQUESTED BY THE PHILIPPINE SIDE

NO	Items of Electrical and Electronic Testing	Applicable IEC Standards
	<b>HEATING APPLIANCES</b>	
1	Electric Flat-Irons	335-2-3
2	Electric Rice Cookers	335-1
3	Electric Cooking Heating Plates	335-2-6
4	Electric Ranges	335-2-6
5	Electric Ovens	335-2-6
6	Electric Toasters	335-2-9
7	Microwave Ovens	335-2-25
8	Electric Immersion Water Heaters	335-2-74
9	Electric Instantaneous Water Heaters	335-2-35
10	Other Electric Heating Appliances for Cooking Purposes	335-2-6
11	Electric Dryers	335-2-11
12	Electric Coffee Makers	335-2-33
13	Electric Clothes Pressers	335-2-48
14	Electric Decoration Appliances	None
15	Electric Lights	None
16	Electric Plastic Welders	None
	<b>MOTOR OPERATED APPLIANCES</b>	
17	Refrigerators	335-2-24
18	Freezers	335-2-24
19	Room Airconditioners	335-2-40
20	Electric Washing Machines	335-2-7
21	Electric Spin Extractors	335-2-4
22	Food Processors	335-2-14
23	Electric Dishwashers	335-2-5
24	Juice Blenders	335-2-14
25	Electric Juice Squeezers	335-2-14
26	Electric Shavers	335-2-8
27	Electric Room Fans	342-1
28	Electric Circulating Fans	342-1
29	Ventilating Fans	342-1
30	Blowers	342-1
31	Electric Vacuum Cleaners	335-2-2
32	Electric Water Coolers	335-2-24
33	Electric Sawing Machines	335-2-28
34	Electric Hairdryers	335-2-23
35	Electric Toothbrushes	335-2-52
36	Electric Cooled Air Fans	842-1

NO	Items of Electrical and Electronic Testing	Applicable IEC Standards
37	Electric Humidifiers	335-2
38	Electric Air Cleaners	335-2-2
39	Electric Floor Polishers	335-2-10
40	Other Electric Motor Operated or Magnetically Driven Appliances	335-1
	<b>ELECTRONIC APPLIANCES</b>	
41	Television Receivers	65
42	Tape Recorders	65
43	Radio Receivers	65
44	Record Players	65
45	Electronic Clocks	65
46	Other Audio Equipment	65
47	Electronic Toys	65
48	Other Electronic Appliances	65
	<b>OTHER APPLIANCES</b>	
49	Transformers for Small Appliances	742
50	Electric Dimmers	None
51	Furniture with Electrical Outlets	None
52	Furniture with Lamps	None

# LAYOUT OF THE PROJECT SITE

(Workshop Building I)

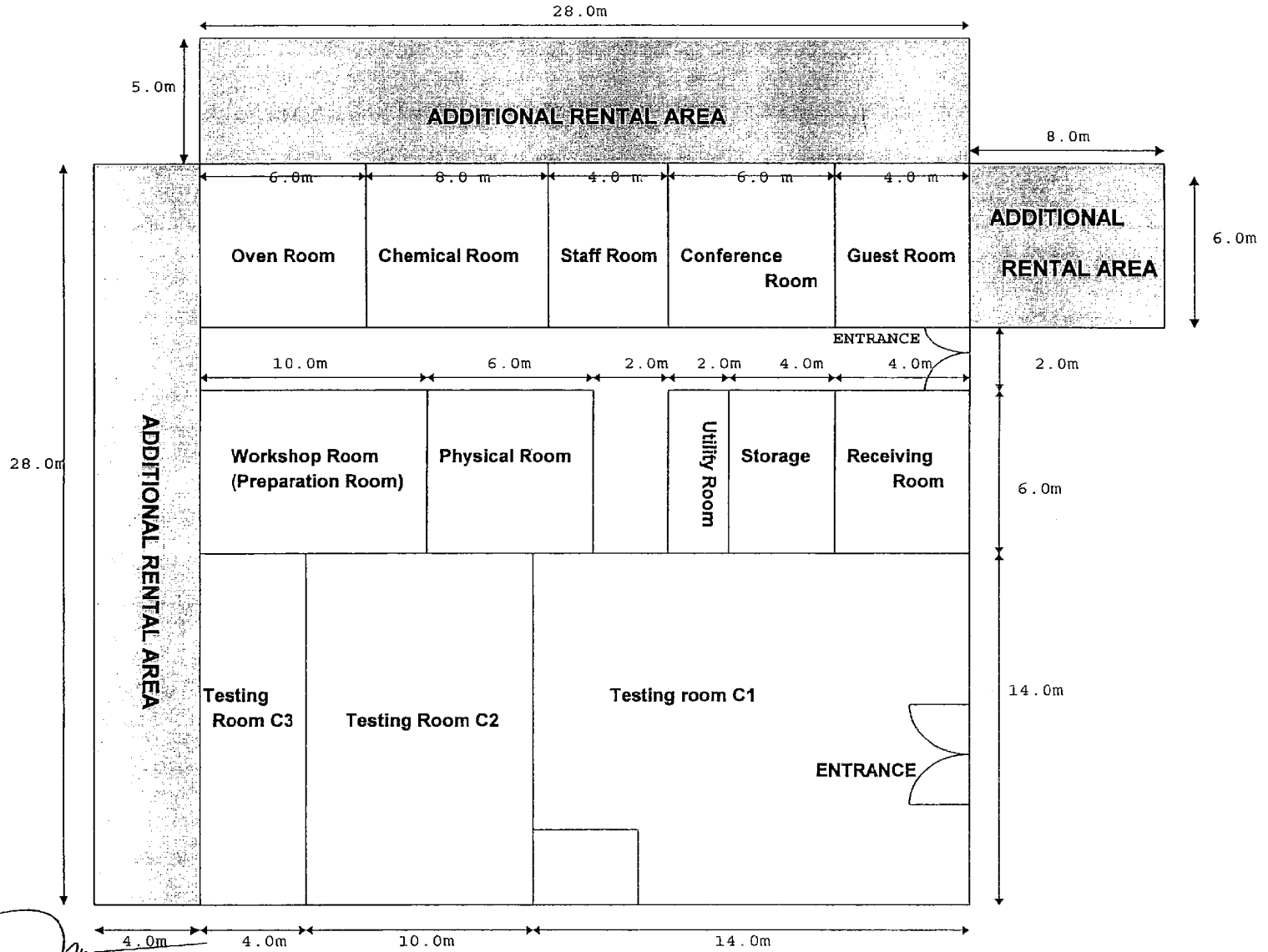


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LAYOUT OF PROJECT SITE (Building III)



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## LIST OF BPS EXISTING EQUIPMENT AS OF FY 1990

NAME	MODEL/MANUFACTURE	QUANTITY	YEAR PLACED IN SERVICE
Thwing-Albert Tensile Tester	Model 37M, SN 22344	1	1975
Flame Retardant Tester	Delton Wires	1	1980
Weight Scale	Model MS-5030, SN 5469	1	1984
Retention Tester		1	1985
Torque Tester		1	1985
Dry Cell Battery (Depletion Tester)		1	1985
Stereo Microscope	Bush & Lomb	1	1986
Dial Thickness Gage	Teclock	1	1975
Pen Recorder	YEW, T-3066	1	1980
Digital AC Power Meter	YEW, T-2504-06	1	1980
Clamp Device for Wheatstone Bridge		1	1980
Circuit Breaker Tester	Hipocronics AC, CBR-100	1	1980

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NAME	MODEL/MANUFACTURE	QUANTITY	YEAR PLACED IN SERVICE
Dielectric Tester	Hipocronics	1	1980
Double Bridge	YEW 2769	1	1980
Insulation Tester	Fuso	1	1980
Variable Transformer	Yamabishi, S-260-230	1	1980
Voltage Current Meter	Yokogawa, 2014	1	1980
Fluorescent Lamp Ballast Tester	Assembled	1	1984
Dial Thickness Gage	Mitutoyo	1	1984
Tumbling Barrel	Assembled	1	1985
Dial Caliper	Mitutoyo, #505-647-50	1	1986
Micrometer (Outside)	Mitutoyo, M120-50	1	1986
Micrometer (Outside)	Mitutoyo	1	1986
Micrometer (Outside)	Mitutoyo, Combomike	1	1986
Micrometer (Tube)	Mitutoyo, BMD-25	1	1986
Vernier Caliper	Mitutoyo	1	1986
Vernier Caliper	Mitutoyo	1	1986



NAME	MODEL/MANUFACTURE	QUANTITY	YEAR PLACED IN SERVICE
Geared Motor	Mitsubishi Electric Corp.	1	1986
Torque Tester		1	1986
AC/DC Adaptor	Knight	1	1986
Automatic Voltage Regulator	Auto STAC, ST3000 N	1	1987
Automatic Voltage Regulator	Matsunaga Stavol SVC-1000N	2	1987
P.I. tape, Stainless	PT Co., lemon Grove	1	
Steel Tape	Stanley	1	
Volt Ammeter	Yokogawa, 2014	2	
AC Voltmeter	Yokogawa, 2132	1	1985

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# LIST OF EQUIPMENT IN BPSTC PROVIDED BY JICA (FY1994 - FY1996)

ANNEX 9

CODE	SERIAL NO	ITEM	MANUFACTURE	QUANTITY	USING	MANAGENT
EE	1	FLUORESCENT LAMP TESTING CIRCUIT UNIT	TOSHIBA LITEC	1	A	A
EE	2	FLOURESCENT LAMP STARTING TEST UNIT	TOSHIBA LITEC	1	A	A
EE	3	FLOURESCENT LAMP PHOTOMETRIC TEST UNIT	TOSHIBA LITEC	1	A	A
EE	4	FLOURESCENT LAMP ENDURANCE TEST UNIT	TOSHIBA LITEC	1	A	A
EE	5	INCANDESCENT LAMP TESTING CIRCUIT UNIT	TOSHIBA LITEC	1	A	A
EE	6	INCANDESCENT LAMP LAMP CAP TEMPERATURE RISE TEST	TOSHIBA LITEC	1	A	A
EE	7	INCANDESCENT LAMP ENDURANCE TEST UNIT	TOSHIBA LITEC	1	A	A
EE	8	STARTER FLOURESCENT LAMP TESTING CIRCUIT UNIT	TOSHIBA LITEC	1	A	A
EE	9	STARTER FLOURESCENT LAMP ENDURANCE TEST UNIT	TOSHIBA LITEC	1	A	A
EE	10	BALLAST TEPERATURE RISE TEST UNIT	TOKYO ELECTRIC	1	A	A
EE	11	BALLAST ELECTRIC CHARACTERISTICS TEST UNIT	TOKYO ELECTRIC	1	A	A
EE	12	BALLAST ENDURANCE TEST UNIT	TOKYO ELECTRIC	1	A	A
EE	13	ARC TRACKING TEST APPARATUS	HITACHI KASEI	1	B	A
EE	14	BALL PRESSURE TEST APPARATUS	EXCEL	1	B	A
EE	15	GLOW WIRE TEST APPARATUS	HITACHI KASEI	1	B	A
EE	16	HOT MANDREL TEST APPARATUS	EXCEL	1	A	A
EE	17	NEEDLE FLAME TEST APPARATUS	EXCEL	1	B	A
EE	18	ACCELERATED AGING TESTER	NEW METALS 6 CHE	1	B	A
EE	19	SPARKING TESTER	YASUDA	1	B	A

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CODE	SERIAL NO	ITEM	MANUFACTURE	QUANTITY	USING	MANAGENT
EE	20	VOLT ENDURANCE TESTER	YASUDA	1	A	A
EE	21	GEER AGING UNIVERSAL TESTER	YASUDA	1	A	A
EE	22	PARALLEL PLATE PLASTMETER	YASUDA	1	A	A
EE	23	ELECTRIC WIRE FLAMMABILITY	YASUDA	2	A	A
EE	24	360 degree TURN BENDING FLEXIBILITY TESTER	YASUDA	1	B	A
EE	25	TEST TUBE AGING TESTER	YASUDA	1	B	A
EE	26	PENDURAM IMPACT TEST APPARATUS	EXCEL	1	B	A
EE	27	TUMBLING BARREL	EXCEL	1	A	A
EE	28	BENDING TEST APPARATUS	EXCEL	1	A	A
EE	29	PERFORMANCE TEST DEVICE FOR FUSE AND FUSEHOLDER	MUKAI GIKEN	1	A	A
EE	30	TEMPERATURE TEST DEVICE FOR FUSE AND FUSEHOLDER	MUKAI GIKEN	1	A	A
EE	31	TUNGSTEN FILAMENT LAMP TESTING APPARATUS FOR C/B	MUKAI GIKEN	1	A	A
EE	32	CALIBRATION TEST DEVICE FOR CIRCUIT BREAKER	MUKAI GIKEN	1	A	A
EE	33	ENDURANCE TEST DEVICE FOR CIRCUIT BREAKER	MUKAI GIKEN	1	A	A
EE	34	ENDURANCE TEST FOR KNIFE SWITCHES DEVICE	MUKAI GIKEN	1	A	A
EE	35	TUNGSTEN FILAMENT LAMP TESTING APPARATUS	MUKAI GIKEN	1	A	A
EE	36	TEMPERATURE TEST DEVICE FOR CIRCUIT BREAKER	MUKAI GIKEN	1	A	A
EI	1	THERMAL RECORDER	YOKOKAWA	1	A	A
EI	2	WHEATSTONE BRIDGE	YOKOKAWA	1	A	A
EI	3	DIGITAL MULTITESTER	YOKOKAWA	1	A	A
EI	4	CLAMPMETER	YOKOKAWA	1	A	A

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CODE	SERIAL NO	ITEM	MANUFACTURE	QUANTITY	USING	MANAGENT
EI	5	INSULATION RESISTANCE METER	YOKOKAWA	1	A	A
EI	6	DIELECTRIC STRENGTH TESTER	KIKUSUI	1	A	A
EI	7	DIELECTRIC STRENGTH TESTER	KIKUSUI	1	A	A
EI	8	UNIVERSAL LEAKAGE CURRENT TESTER	YOKOKAWA	1	A	A
EI	9	EARTH CONTINUTY TEST APPARATUS	EXCEL	1	A	A
EI	10	DIELECTRIC STRENGTH TESTER	KIKUSUI	1	A	A
EI	11	PRESCISSION DOUBLE BRIDGE	YOKOKAWA	1	A	A
EI	12	ELECTRIC GALVANOMETER	YOKOKAWA	1	A	A
EI	13	INSULATION RESISTER	ADVAN TEST	1	A	A
EI	14	AC VOLTAGE/CURRENT STANDARD	YOKOKAWA	1	A	A
EI	15	DC CALIBRATION SET	YOKOKAWA	1	A	A
EI	16	LOOP TYPE CALIBRATION DEVICE (5KN/20KN)	MAEKAWA	1	A	A
EI	18	THERMAL RECORDER	YOKOKAWA	2	A	A
EI	19	WHEATSTONE BRIDGE	YOKOKAWA	1	A	A
EI	20-22	DIGITAL MULTITESTER	YOKOKAWA	3	A	A
EI	23-24	CLAMP METER	YOKOKAWA	2	A	A
EI	25-26	INSULATION RESISTANCE METER	MITSUTOYO	2	A	A
EI	27-28	DIELECTRIC STRENGTH TESTER	KIKUSUI	2	A	A
EM	1,-8	AMMETER	YOKOKAWA	8	B	A
EM	9,-11	VOLTMETER	YOKOKAWA	3	B	A
EM	12,-14	WATTMETER	YOKOKAWA	3	B	A

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CODE	SERIAL NO	ITEM	MANUFACTURE	QUANTITY	USING	MANAGENT
EM	15,-30	AMMETER	YOKOKAWA	16	B	A
EM	31,-36	VOLTMETER	YOKOKAWA	6	B	A
EM	37,-42	WATTMETER	YOKOKAWA	6	B	A
EM	43	PRECISION AMMETER	NONE	1	B	A
EV	1	AUTO VOLTAGE REGULATOR	YAMABISHI	1	A	A
EV	2	VOLTAGE REGULATOR	YAMABISHI	1	A	A
EV	3	INSULATED TRANSFORMER	YAMABISHI	1	A	A
EV	4,-5	STANDARD TEST FINGER SET	EXCEL	2	B	A
EV	6,-13	TEST PROVE	NONE	8	B	A
EV	14,-21	DECADE RESISTANCE BOX	YOKOKAWA	8	A	A
EV	22,-25	MEASURING CLAMP	YOKOKAWA	4	B	A
EV	26,-29	MEASURING CORD	YOKOKAWA	4	B	A
EV	30,-31	AUTO VOLTAGE REGULATER	YAMABISHI	2	A	A
EV	32,-35	VOLTAGE REGULATOR	YOKOKAWA	4	A	A
EV	36	STANDARD TEST FINGER SET	EXCEL	2	B	A
EV	37	INSULATED TRANSFOMER	YAMABISHI	1	A	A
EV	38,-42	LOADING UNIT	MUKAI GIKEN	5	A	A
EV	44	HAND ROLLER NO.349	NONE	1	A	A
EV	45,-47	DUMMY FUSE	NONE	3	A	A
EV	48,-50	DUMMY FUSE	NONE	3	A	A
EV	51	CAP GAUGES FOR FLUORESCENCE LIGHT BULB	NONE	1	D	A

5



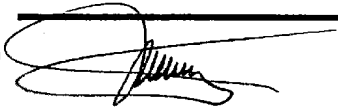
CODE	SERIAL NO	ITEM	MANUFACTURE	QUANTITY	USING	MANAGENT
EV	52	CAP GAUGES FOR FLUORESCENCE LAMP BULB	NONE	1	D	A
EV	53	CAP GAUGES FOR LIGHT BULB	NONE	1	D	A
EV	54	CAP GAUGES FOR LAMP BULB	NONE	1	D	A
EV	55	CAP GAUGES FOR LAMP BULB	NONE	1	D	A
EV	56	CAP GAUGES FOR LAMP BULB	NONE	1	D	A
EV	57	CAP GAUGES FOR LAMP BULB	NONE	1	D	A
EV	58	CAP GAUGES FOR LIGHT BULB	NONE	1	D	A
EV	59	CAP GAUGE FOR STARTER	NONE	1	D	A
EV	60	CAP GAUGE FOR STARTER	NONE	1	D	A
EV	61	CAP GAUGE FOR STARTER	NONE	1	D	A
EV	62	LAMP HOLDER GAUGE FOR FLUORESCENCE LIGHT BULB	NONE	1	D	A
EV	63	LAMP HOLDER GAUGE FOR FLUORESCENCE LAMP BULB	NONE	2	D	A
EV	64	LAMP HOLDER GAUGE FOR FLUORESCENCE LIGHT BULB	NONE	1	D	A
EV	65	LAMP HOLDER GAUGE FOR LIGHT BULB	NONE	1	D	A
EV	66	STARTER HOLDER GAUGE	NONE	2	D	A
EV	67	STARTER HOLDER GAUGE	NONE	1	D	A
EV	68	CONTACT MAKING GAUGE FOR F/L BULB LAMP HOLDER	NONE	1	D	A
EV	69	CONTACT MAKING GAUGE FOR F/L BULB LAMP HOLDER	NONE	3	D	A
EV	70	CONTACT MAKING GAUGE FOR LIGHT BULB LAMP HOLDER	NONE	1	D	A
EV	71	CONTACT MAKING GAUGE FOR F/L BULB LAMP HOLDER G13	NONE	1	D	A
EV	72	CONTACT MAKING GAUGE FOR LIGHT BULB LAMP HOLDER	NONE	1	D	A

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CODE	SERIAL NO	ITEM	MANUFACTURE	QUANTITY	USING	MANAGENT
EV	73	CONTACT MAKING GAUGE FOR LIGHT BULB LAMP HOLDER	NONE	1	D	A
EV	74	CONTACT MAKING GAUGE FOR STARTER HOLDER	NONE	1	D	A
EV	75	CONTACT MAKING GAUGE FOR STARTER HOLDER	NONE	1	D	A
EV	76	CAP GAUGE FOR FLUORESCENCE LIGHT BULB	NONE	1	D	A
EV	77	CAP GAUGE FOR LIGHT BULB	NONE	1	D	A
EV	78	CAP GAUGE FOR LIGHT BULB	NONE	1	D	A
EV	79	CAP GAUGE FOR LIGHT BULB	NONE	1	D	A
EV	80	LAMP HOLDER GAUGE FOR LIGHT BULB	NONE	1	D	A
EV	81	LAMP HOLDER GAUGE FOR LIGHT BULB	NONE	1	D	A
EV	82	CONTACT MAKING GAUGE FOR FLOURESCENCE LIGHT BUL	NONE	1	D	A
EV	83	CAP GAUGE FOR LIGHT BULB	NONE	1	D	A
EV	84	CAP GAUGE FOR LIGHT BULB	NONE	1	D	A
EV	85	CAP GAUGE FOR LIGHT BULB	NONE	1	D	A
EV	86	CAP GAUGE FOR LIGHT BULB	NONE	1	D	A
EV	87	LAMP HOLDER GAUGE FOR LIGHT BULB	NONE	1	D	A
EV	88	LAMP HOLDER GAUGE FOR LIGHT BULB	NONE	1	D	A
EV	89	LAMP HOLDER GAUGE FOR LIGHT BULB	NONE	1	D	A
EV	90	LAMP HOLDER GAUGE FOR LIGHT BULB	NONE	1	D	A
EV	91	CONTACT MAKING GAUGE FOR LIGHT BULB LAMP HOLDER	NONE	1	D	A
EV	92	CONTACT MAKING GAUGE FOR LIGHT BULB LAMP HOLDER	NONE	1	D	A
EV	93	CONTACT MAKING GAUGE FOR LIGHT BULB LAMP HOLDER	NONE	1	D	A

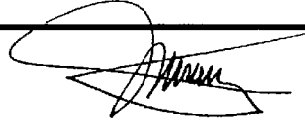
CODE	SERIAL NO	ITEM	MANUFACTURE	QUANTITY	USING	MANAGENT
EV	94	COMPOUND ABRASION TESTER	NONE	1	A	A
GE	1	TEMPERATURE/HUMIDITY CHAMBER	TABA YESPEC	1	A	A
GE	2	TEMPERATURE CHAMBER	TABA YESPEC	1	A	A
GE	3	TEMPERATURE CHAMBER	TABA YESPEC	1	A	A
GE	4	DUST CHAMBER	TABA YESPEC	1	A	A
GE	5	PROFILE PROJECTOR	mitsutoyo	1	A	A
GE	6	POTENTIOMETER TYPE EXTENSOMETER	NONE	1	A	A
GI	1	VERNIR CALPER SET	mitsutoyo	1	B	A
GI	2	OUTSIDE MICROMETER SET	mitsutoyo	1	B	A
GI	3,-4	INSIDE MICROMETER SET	mitsutoyo	2	B	A
GI	5,-6	STEEL LONG TAPE SET	YAMATO	2	B	A
GI	7,-9	STEEL RULE SET	YAMATO	3	A	A
GI	10	THICKNESS GAUGE SET	mitsutoyo	1	B	A
GI	11	TOOLMAKERS MICROSCOPE	mitsutoyo	1	A	A
GI	12	DIGIMATIC INDICATOR SET	mitsutoyo	1	A	A
GI	13	HYGROTHERMOGRAPH	SECONIC	1	A	A
GI	14	INFRARED THERMOMETER	MINORTA	1	B	A
GI	15,-17	TORQUE DRIVER SET	TONICHI	1	B	A
GI	18	SPRING BALANCE	mitsutoyo	1	B	A
GI	19	TENSION GAUGE SET	TEFLOC	1	B	A
GI	20,-21	STEEL TAPE MEASURE	YAMATO	2	A	A

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CODE	SERIAL NO	ITEM	MANUFACTURE	QUANTITY	USING	MANAGENT
GI	22,-29	SREEL SCALE (4PCS/SET)	YAMATO	2	B	A
GI	30	DELTA SCOPE	YASUDA	1	B	A
GI	31	GAUGE BLOCK SET	MITSUTOYO	1	B	A
GI	32	STANDARD WEIGHT SET	MITSUTOYO	1	B	A
GI	33,-34	STANDARD THERMOMETER (8PCS/SET)	YOKOKAWA	2	B	A
GI	35,-39	VERNIR CALIPER	MITSUTOYO	5	B	A
GI	40,-41	OUTSIDE MICROMETER SET	MITSUTOYO	2	B	A
GI	42,-43	INSIDE MICROMETER SET	MITSUTOYO	2	B	A
GI	44	THICJNESS GAUGE	MITSUTOYO	1	B	A
GI	45, -48	THERMOHYGROGRAPH	SECONIC	4	A	A
KE	1	METAL ANALYZER (UV-VIS SPECTROPHOTOMETER)	SHIMAZU	1	D	A
KV	1	LABORATORY REFRIGERATOR	SANYO	1	A	A
KV	2	DISTILLING APPARATUS	ADVAN TEST TOYO	1	A	A
KV	3, -5	VACUUM DESICATOR	TOKYO GLASS	3	A	A
KV	6, -8	MANUAL VACUUM PUMP	TOKYO GLASS	3	B	A
KV	9, -10	ELECTRIC ANALYTICAL BALANCE	SHIMAZU	2	B	A
ME	1	TENSILE TESTING MACHINE	SHIMAZU	1	A	A
ME	2	UNIVERSAL TESTING MACHINE	SHIMAZU	1	A	A
ME	3	PRESSURE TEST APPARATUS	TAKEDA RIKA	1	B	A
ME	4	LATHE MACHINE	SAKAI CAMERA	1	A	A
OE	1, -3	PERSONAL COMPUTER WITH PRINTER	IBM/HP	3	A	A

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CODE	SERIAL NO	ITEM	MANUFACTURE	QUANTITY	USING	MANAGENT
OE	4	ELECTRIC CALCULATOR	CASIO	1	A	A
OE	5	FACSIMILE	CANON	1	A	A
OE	6	COPYING MACHINE	CANON	1	A	A
OE	7, -9	PERSONAL COMPUTER WITH PRINTER	IBM / HP	3	A	A
OE	10, -13	ELECTRIC CALCULATOR	CASIO	4	A	A
CAR	1	MOTOR VEHICLE	TOYOTA	1	A	A
CAR	2	MOTOR VEHICLE (LOCAL PURCHASE)	MITSUBISHI	1	A	A
SE	1	ELECTRIC SAW	HITACHI	1	B	A
SE	2	ELECTRIC SANDER	HITACHI	1	B	A
SE	3	BENCHI TYPE DRILLING MACHINE	HITACHI	1	B	A
SE	4	ELECTRIC GRINDER	HITACHI	1	B	A
SE	5	JIG SAW	HITACHI	1	B	A
SE	6	WELDING MACHINE	MATSUSHITA	1	B	A
SE	7	PORTABLE DRILL	HITACHI	1	B	A
SE	8	AIR COMPRESSOR	IWATA	1	B	A
SE	9	WATER COMPRESSOR	IWAKI	1	B	A
SE	10	HAND LIFTER	HANSHIN MOBLE	1	A	A
SE	11	DRILL SET	COPELTO	1	A	A
SE	12	TABLE VICE	NONE	1	B	A
SE	13	SOLDERING STATIONS	HOZAN	1	B	A
SE	14, -21	TOOL KIT	TONE	8	B	A

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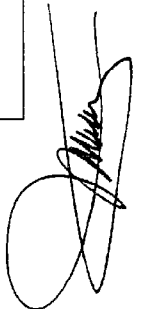
CODE	SERIAL NO	ITEM	MANUFACTURE	QUANTITY	USING	MANAGENT
SE	22	SCHOPPER SAMPLE CUTTER	YASUDA	1	B	A
SE	23, -27	ELECTRICAL TOOL SET	TONE	5	A	A
SE	28, -29	SMALL TYPE VICE	SHIMAZU	2	A	A
GV	1	TEST WEIGHT	NONE	1	B	A
MV	1, -2	IMPACT HAMMER	EXCEL	2	B	A
TR	1	COPY BOARD	NEC	1	A	A
TR-2	2	TV MONITOR	VICTOR	1	A	A
TR	3	VIDEO DECK	VICTOR	1	A	A
TR	4	VIDEO TEACHING MATERIALS	PHP RESEARCH	12	B	A
B	1	BOOKS FOR QUALITY CONTROL	NONE	8	B	A
B	2	JAPANESE INDUSTRIAL STANDARD (ORIGINAL)	JSA	11	C	A
B	3	JAPANESE INDUSTRIAL STANDARD (ENGLISH)	JSA	11	C	A
B	4	JIS HAND BOOK (JAPANESE)	JSA	17	C	A
B	5	JIS HAND BOOK (ENGLISH)	JSA	15	C	A
OE	14	CCTV SYSTEM (LOCAL PURCHASE)	SANYO	1	A	A
OE	15	COMPACT MOBILE STORAGE SYSTEM (LOCAL PURCHASE)	ELECTROLUX	1	A	A
OE	16	PERSONAL COMPUTER (LOCAL PURCHASE)	MICRON	2	A	A
OE	17	COMPUTER PROGRAM (LOCAL PURCHASE)	WESERV SYSTEM	1	A	A
OE	18	COLLATING SYSTEM (LOCAL PURCHASE)	PLOCKMATIC	1	A	A
OE	19	PERSONAL COMPUTER (LOCAL PURCHASE)	ACER	2	A	A
OE	20	BOOK SHELVES (LOCAL PURCHASE)	NONE	2	A	A

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## TENTATIVE SCHEDULE OF C/P ALLOCATION

(Unit: Person)

YEAR	1998	1999	2000	2001	2002
THE PROJECT STAFF					
PROJECT DIRECTOR	1	1	1	1	1
PROJECT MANAGER	1	1	1	1	1
ADMINISTRATIVE STAFF	12	12	12	12	12
TESTING STAFF	30	30	30	30	30
STANDARDIZATION STAFF	3	3	3	3	3
CERTIFICATION STAFF	3	3	3	3	3
CLEANING STAFF AND OTHER SERVICES	5	5	5	5	5
TOTAL	55	55	55	55	55



## TENTATIVE SCHEDULE OF BUDGET ALLOCATION

(Unit: Peso)

YEAR	1998	1999	2000	2001	2002
BUDGET ITEM					
PERSONNEL EXPENSES	2,674,349.00	2,674,349.00	2,674,349.00	2,674,349.00	2,674,349.00
MAINTENANCE AND OPERATING EXPENSES	7,160,000.00	7,160,000.00	7,160,000.00	7,160,000.00	7,160,000.00
BUILDING	120,000,000.00	0.00	0.00	0.00	0.00
BUILDING FURNITURES	10,000,000.00	0.00	0.00	0.00	0.00
EQUIPMENT	1,000,000.00	1,500,000.00	1,000,000.00	800,000.00	600,000.00
TOTAL ANNUAL BUDGET	140,834,349.00	11,334,349.00	10,834,349.00	10,634,349.00	10,434,349.00

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## BPS (BPS Makati &amp; BPSTC) ANNUAL BUDGET

## 1. ANNUAL BUDGET

(Unit: Peso)

	1993	1994	1995	1996	1997	1998 (Proposal)
PS (Personnel Services)	6,408,000.00	6,620,000.00	5,562,000.00	9,860,000.00	9,822,000.00	16,267,000.00
	0.00	617,000.00	1,730,000.00	1,730,000.00	1,815,000.00	2,674,349.00
MOE	4,748,000.00	3,649,000.00	3,079,000.00	7,638,000.00	6,990,000.00	5,969,000.00
(Maintenance, Operating)	0.00	2,856,000.00	5,642,000.00	5,642,000.00	7,976,000.00	7,160,000.00
CO (Capital Outlay)	0.00	0.00	0.00	0.00	630,000.00	0.00
	0.00	13,860,000.00	0.00	0.00	4,093,000.00	131,000,000.00
Total Budget for BPS Makati	11,156,000.00	10,269,000.00	8,641,000.00	17,498,000.00	17,442,000.00	22,236,000.00
BPSTC	0.00	17,333,000.00	7,372,000.00	7,372,000.00	13,884,000.00	140,834,349.00
Total Budget for BPS	11,156,000.00	27,602,000.00	16,013,000.00	24,870,000.00	31,326,000.00	163,070,349.00

## 2. INCOME

(Unit: Peso)

	1993	1994	1995	1996	1997
TESTING FEE & CERTIFICATION FEE	2,785,658.16	6,236,371.09	7,812,762.40	13,375,705.22	N/A

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\*DOE-FATL APPLIANCES TESTING CAPABILITIES

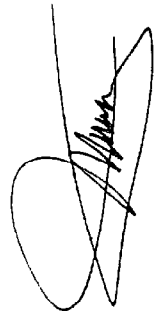
I. Energy Performance and Performance Certification Test

- 1) Room Air Conditioners (Existing)
- 2) Refrigerators and Freezers (Existing)
- 3) Fluorescent Lamp Ballast (Existing)
- 4) Fluorescent Lamps (Existing)
- 5) Industrial Fans and Blowers (Programmed)
- 6) Electric Motors (Programmed)
- 7) Household AC Fans (Programmed)

II. Safety Performance Test

- 1) Household AC Fans (Existing)

\* DOE-FATL ( Department of Energy, Fuels and Appliances Testing Laboratory)

A handwritten signature in black ink, consisting of several loops and a vertical stroke, located in the lower right quadrant of the page.

THE ROLE AND DUTY  
OF REGIONAL/PROVINCIAL STANDARDS OFFICERS OF DTI

DTI Regional/Provincial Standards Officers	BPS
<ul style="list-style-type: none"> <li>• Conduct factory and product assessments and product sampling</li> </ul>	<ul style="list-style-type: none"> <li>• Provide/update operations manual and other guidelines</li> <li>• Evaluate factory and product assessment reports</li> </ul>
<ul style="list-style-type: none"> <li>• If accredited laboratory is available in the region conduct product test otherwise send samples to BPS</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct laboratory tests</li> <li>• Issue test reports</li> <li>• Issue PS Quality Certification Mark license, or test certificates; or</li> </ul>
<ul style="list-style-type: none"> <li>• Provide, if necessary technical consultancy to manufacturers /conduct reassessment</li> <li>• Collect license and testing fees</li> </ul>	<ul style="list-style-type: none"> <li>• Request further assessment by RDG in view of factories deficiencies that must be corrected</li> <li>• Prepare/coordinate billing</li> </ul>
<ul style="list-style-type: none"> <li>• Conduct market monitoring</li> </ul>	
<ul style="list-style-type: none"> <li>• Enforce standards</li> <li>• Prepare file legal cases against violators of mandatory standards</li> </ul>	<ul style="list-style-type: none"> <li>• Provide legal assistance to RDG</li> <li>• Coordinate DTI legal action on cases</li> </ul>

FUNCTIONS AND MEMBERS OF JOINT COORDINATING COMMITTEE

1. Functions

The joint coordinating committee will meet at least once a year and whenever necessity arises for the purpose of :

- 1) approving the annual work plan of the Project in line with the Technical Cooperation Program (TCP) and Tentative Schedule of Implementation (TSI) in the framework of the Record of Discussions,
- 2) coordinating necessary actions to be taken by both sides,
- 3) reviewing the overall progress of the Project program as well as its achievement,
- 4) exchanging views on major issues arising from or in connection with the Project.

2. Members of the Committee

1) Chairperson

Director of BPS

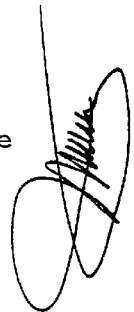
2) Committee Members

(Philippine Side)

- a. Representative(s) of National Economic Development Authority
- b. Representative(s) of Department of Trade and Industry
- c. Representative(s) of Bureau of Product Standards
- d. Representative(s) of Metals Industrial Research and Development Center
- e. Other personnel concerned with the Project decided by the Philippine Side

(Japanese Side)

- a. Chief Advisor
- b. Coordinator
- c. Japanese Experts designated by the Chief Advisor
- d. Representative(s) of the JICA Office in the Republic of the Philippines
- e. Other personnel concerned to be decided and dispatched by JICA, if necessary
- f. Official(s) of the Embassy of Japan may attend the Committee



TENTATIVE SCHEDULE OF IMPLEMENTATION (TSI)

Calendar Year	1997				1998				1999				2000				2001				2002							
Japanese Fiscal Year	1997				1998				1999				2000				2001				2002							
	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III
Term of Technical Cooperation	-----																											
<u>Japanese Side</u>																												
I. Dispatch of Mission																												
(1)Preliminary Study	+																											
(2)Specialists Survey			+																									
(3)Implementation					+																							
(4)Consultation												+																
(5)Advisory																												
(6)Evaluation																												
II. Dispatch of Long-Term Experts																												
(1)Chief Advisor	-----																											
(2)Coordinator	-----																											
(3)Electrical Testing	-----																											
III. Dispatch of Short-Term Experts	(short-term experts on specific field dispatched, if necessary)																											
IV. Training of C/P Personnel in Japan	(appropriate number of C/P personnel accepted annually)																											
V. Provision of Machinery and Equipment																												
<u>Philippine Side</u>																												
I. Building and Facilities																												
	----- (existing facilities)																											
	----- (new building)																											
II. Machinery and Equipment	-----																											
III. Allocation of C/P Personnel and Staff	-----																											
IV. Budgetary Allocation	-----																											

## LIST OF ATTENDANTS IN THE DISCUSSION

The Japanese Side

- 1 Japanese Preliminary Study Team
 

Mr. Toshio Sugihara	Leader
Mr. Tadato Onitsuka	Member (Standardization)
Mr. Kunio Sakurai	Member (Technical Transfer Program)
Mr. Kazuhiro Suzuki	Member (Electrical Testing)
Mr. Susumu Katsumata	Member (Cooperation Planning)
  
- 2 Japanese Experts for 'Industrial Standardization and Electrical Testing Project in the Republic of the Philippines'
 

Mr. Hiroshi Yoshimitsu	Chief Advisor
Mr. Kazuki Ishida	Project Coordinator
Mr. Norio Ishizaki	Standardization
Mr. Teruo Kawamura	Quality Control
Mr. Masahiko Ozaki	Electrical Testing
Mr. Satoru Tashiro	Calibration
  
- 3 JICA Philippine Office
 

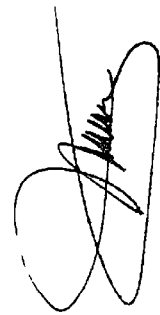
Mr. Hajime Nakazawa	Assistant Resident Representative
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Philippine Side

- 1 Department of Industry (DTI)
 

Ms. Zenaida Cuison-Maglaya	Assistant Secretary
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- 2 Bureau of Product Standards (BPS), DTI
 

Mr. Jesus L. Motoomull	Director
Ms. Cirila S. Botor	Assistant Director
Ms. Norma C. Hernandez	Chief, Standards Conformity Division
Ms. Clarissa M. Oracion	Chief, Standards Development Division
Mr. Gerardo P. Panopio	Caretaker, BPS Testing Center
Mr. Victorino C. Abejero	Test Engineer, BPS Testing Center
Mr. Jerry T. Sayson	Test Engineer, BPS Testing Center
Mr. Antonio D. Panara	Test Engineer, BPS Testing Center




2. 要請関連書類

No. 976407

The Department of Foreign Affairs presents its compliments to the Embassy of Japan and has the honor to endorse the second and final batch of the Government of the Philippines seven proposed projects for consideration by the Government of Japan under the FY 1997 Project Type Technical Cooperation (PTTCP).

The proposed projects are geared towards to: (i) Improvement of rural productivity through the upgrading of agricultural technology, specifically in Mindanao region and people empowerment under the "Establishment of the Mindanao Postharvest Research Institute of Horticultural Development" and the "Human Resource Development Project for Strengthening Agricultural Cooperative Organization, Management and Business"; (ii) enhancing the global competitiveness of the country's industrial sector under the "Industrial Standardization Testing and training Project (Phase II), "Strengthening of Technical Expertise for the Production and Utilization of New and Clean Sources of Energy for Sustainable Development in the Philippines, and "Establishment of Geographical Information System in the CALABARZON Subregion"; (iii) Environmental conservation under the "Environmental Technology Management Research and Training Center"; and (iv) Improving the



efficiency and ...../2

efficiency and effectiveness of the public sector in service delivery in the water resources and transport sectors under the "Water Supply Training Program", and "Assistance/Technology Transfer Concerning the Production of Electronic Navigational Charts".

The Department would appreciate being informed of the Japanese Government's decision on this request.

The Department of Foreign Affairs avails itself of this opportunity to renew to the Embassy of Japan the assurances of its highest consideration.

Enclosures: as stated



Passay City, 14 January 1997



REPUBLIC OF THE PHILIPPINES  
NATIONAL ECONOMIC AND DEVELOPMENT AUTHORITY  
NEDA sa Pasig, Amber Avenue, Pasig City

17 October 1996

Cable Address: NEDAPHIL  
P.O. Box 419, Greenhills  
Tels. 831-09-45 to 64

HONORABLE MAKOTO KATSURA  
Minister  
Embassy of Japan  
375 Senator Gil Puyat Avenue  
Makati City

Attention: Director Ren'chiro Takahashi, Economic Division

Dear Minister Katsura:

We are pleased to forward herewith the list of the Government of the Philippines' (GOP) candidate projects for consideration under the FY 1997 Project Type Technical Cooperation Program (PTTCP) of the Japanese Government (GOJ).

The subject list of eight projects is in addition to the list forwarded by NEDA on 27 August 1996. The first batch consisted of 2 projects, namely: (i) "Establishment of a Forest Tree Seed Center" (ERDB-DENR); and (ii) "Establishment of a Flood Control and Sabo Engineering Center" (DPWH). The proposed second batch consists of seven projects which have been favorably evaluated and approved by the NEDA Secretariat, and one project which was previously requested under the FY 1996 PTTCP but was not favorably considered at that time due to some concerns raised by the GOJ.

We are pleased to note a good balance of projects since these directly support the priority areas for development cooperation between the GOJ and the GOP, particularly the restructuring of agri-industry, environmental conservation, improvement of socio-economic infrastructure and disaster management. Specifically, the list includes projects geared towards the following major objectives:

- a) Improvement of rural productivity through the upgrading of agricultural technology, specifically in the Mindanao region and people empowerment through the proposed "Establishment of the Mindanao Postharvest Research Institute of Horticultural Development" and, the "Human Resource Development Project for Strengthening Agricultural Cooperative Organization, Management and Businesses";
- b) Enhancing the global competitiveness of the country's industrial sector through the "Industrial Standardization Testing and Training Project (Phase II)"; "Strengthening of Technical Expertise for the Production and Utilization of New and Clean Sources of Energy for Sustainable Development in the Philippines"; and "Establishment of Geographical Information System in the CALABARZON Subregion";



*Tubang-tubang  
sa Pag-unlad*



- c) Environmental conservation under the "Environmental Technology Management Research and Training Center"; and
- d) Improving the efficiency and effectiveness of the public sector in service delivery in the water resources and transport sectors under the "Water Supply Training Program" and "Assistance/Technology Transfer Concerning the Production of Electronic Navigational Charts", respectively.

Our Public Investment Staff (PIS) shall closely coordinate with your Embassy regarding any clarification or information which you might need regarding this submission. We look forward to your kind consideration of these requests.

Thank you and warm regards.

Very truly yours,

  
DANTE B. CANLAS  
Acting Director-General

cc: Secretary Domingo L. Siazon, DFA  
Director Julia Heidemann, DFA-ASPAC  
Deputy Resident Representative Juro Chikaraishi, JICA

**LIST OF THE GOVERNMENT OF THE PHILIPPINES' (GOP)  
CANDIDATE PROJECTS FOR THE JAPANESE GOVERNMENT'S (GOJ)  
FY 1997 PROJECT TYPE TECHNICAL COOPERATION PROGRAM (PTTCP)**

	<b>PROJECT TITLE</b>	<b>IMPLEMENTING AGENCY</b>	<b>PROJECT DESCRIPTION</b>	<b>COMMENTS</b>
1.	<b>Environmental Technology Management Research and Training Center</b>	<b>Technological University of the Philippines (TUP)</b>	The project aims to (i) establish world-class facilities for the education and training of trainers and technologists in the various areas of concern for environmental management; (ii) develop a critical mass of experts, specialists and technical staff who can undertake basic and developmental programs, projects and activities on/with the established facilities; and (iii) develop programs of training and research in environmental management	The Center shall become a common venue for all institutions and organizations pursuing regular and special projects and programs on the mitigation of natural, social and technological impact of human decisions on the environment as well as the enhancement of environmental conditions necessary to sustain a desired quality of life
2.	<b>Strengthening of the Technical Expertise for the Production and Utilization of New and Clean Sources of Energy of Sustainable Development in the Philippines</b>	<b>Department of Science and Technology (DOST)</b>	The project aims to (i) develop biomass processing technologies and delivery systems to obtain additional energy sources; (ii) develop clean coal technologies to control the environmental impact of local coal utilization; (iii) conduct collaborative R&D energy products and service-oriented activities in response to the needs of the industry and other sectors, among other objectives.	The project was earlier endorsed under PTTCP FY 1996 but was not favorably considered for funding due to the low priority accorded it by the GOJ at that time. Per the GOJ, the project may be considered if resubmitted under FY 1997

**LIST OF THE GOVERNMENT OF THE PHILIPPINES' (GOP)  
CANDIDATE PROJECTS FOR THE JAPANESE GOVERNMENT'S (GOJ)  
FY 1997 PROJECT TYPE TECHNICAL COOPERATION PROGRAM (PTTCP)**

	<b>PROJECT TITLE</b>	<b>IMPLEMENTING AGENCY</b>	<b>PROJECT DESCRIPTION</b>	<b>COMMENTS</b>
3.	Establishment of a Geographical Information System (GIS) in the CALABARZON Region	Department of Trade and Industry (DTI)	The development of an information system is proposed to enhance project implementation and investment promotion of the project CALABARZON. The system envisages to upgrade the regional information of the region by enabling comprehensive update and continuous monitoring of the socio-economic and infrastructure developments. Specifically, the system will be founded on a GIS oriented master database consisting of physio-geographic, socioeconomic and investment related information. There will be easy-to-use tools such as on-line-help in the system to ensure effective technology transfer to the executing agency	

LIST OF THE GOVERNMENT OF THE PHILIPPINES' (GOP)  
 CANDIDATE PROJECTS FOR THE JAPANESE GOVERNMENT'S (GOJ)  
 FY 1997 PROJECT TYPE TECHNICAL COOPERATION PROGRAM (PTTCP)

PROJECT TITLE	IMPLEMENTING AGENCY	PROJECT DESCRIPTION	COMMENTS
4. Industrial Standardization Testing and Training (Phase II)	Department of Trade and Industry (DTI)	<p>The proposed project is a continuation of the ongoing PTTCP project on Industrial Standardization and Electrical Testing which will end this August 1997.</p> <p>Consistent with Memorandum No. 383 of the President, the project aims to: (i) support the electrical / electronic appliance industry in improving their products' quality through product testing and inspection; (ii) to protect and safeguard the consumers against using substandard electrical / electronic appliances and machines; (iii) to be able to expand exports by assuring local electrical / electronic appliances' compliance to international standards</p>	<p>The objectives are in line with the Government's strategy of making the country's industrial sector highly competitive. Due to the increasing demand for high quality products, Philippine products have to be tested in accordance with the international standards to make these acceptable in the international market. Now that moves are currently underway for the final implementation of the APEC MRA scheme, Philippine industries must be provided with appropriate facilities for product testing and certification. With BPS' improved / enhanced capability, it is also envisioned that imported products will be more adequately tested / inspected thus curbing the dumping of substandard products in the country.</p>

LIST OF THE GOVERNMENT OF THE PHILIPPINES' (GOP)  
 CANDIDATE PROJECTS FOR THE JAPANESE GOVERNMENT'S (GOJ)  
 FY 1997 PROJECT TYPE TECHNICAL COOPERATION PROGRAM (PTTCP)

	PROJECT TITLE	IMPLEMENTING AGENCY	PROJECT DESCRIPTION	COMMENTS
5.	Establishment of the Mindanao Postharvest Research Institute for Horticultural Development (MinPRIHDe)	University of Southeastern Philippines (USP)	The project aims to establish an institute which will take the lead in supporting the horticulture industry in Mindanao through the timely delivery of postharvest technologies. Specifically, it aims to equip this institute with the necessary human resource base and facilities to implement a strong R&D program in postharvest horticulture.	The establishment of postharvest horticulture institute based in a state university is consistent with the development thrust of the region. It is also consistent with the aggregate mission of the four State Universities and Colleges (SUCs) in region 11 which endeavors to develop technical, scientific and managerial capability, and technologies thru research and extension in the region.
6	Human Resource Development Project for Strengthening Agricultural Cooperative Organization, Management and Business	Cooperative Development Authority - Office of the president (CDA-OP)	The project is aimed at imparting practical skills, knowledge and orientation necessary for enhancing management capability, developing and expanding financial resources, and strengthening members' participation.  The project intends to involve and implement an effective plan for strengthening the education and training as well as the development	

**LIST OF THE GOVERNMENT OF THE PHILIPPINES' (GOP)  
CANDIDATE PROJECTS FOR THE JAPANESE GOVERNMENT'S (GOJ)  
FY 1997 PROJECT TYPE TECHNICAL COOPERATION PROGRAM (PTTCP)**

PROJECT TITLE	IMPLEMENTING AGENCY	PROJECT DESCRIPTION	COMMENTS
7. Water Supply Training Program	University of the Philippines - National Hydraulic Research Center	<p>of leaders and employees. The project will also involve the a nationwide information dissemination to enable cooperatives to strengthen their capacities</p> <p>The project aims to (i) develop upgraded and highly trained manpower in Government, the private sector and the academe by offering an advanced training program in water supply engineering, operation and management; (ii) establish training guidelines and develop stadard instruction methodologies and materials for both trainers and trainees; (iii) develop specialized training courses as needed in the water supply subsector; and (iv) effect technology transfer from the expatriate staff to the counterpart staff and qualified trainees of water supply agencies</p>	<p>This project replaces the project entitled "Water Supply Technology Training Center" which was originally submitted by the MWSS and the LWUA.</p> <p>The NEDA believes that the success and sustainability of the proposed training program would be best ensured if the said program was managed and administered by the NHRC.</p>

**LIST OF THE GOVERNMENT OF THE PHILIPPINES' (GOP)  
CANDIDATE PROJECTS FOR THE JAPANESE GOVERNMENT'S (GOJ)  
FY 1997 PROJECT TYPE TECHNICAL COOPERATION PROGRAM (PTTCP)**

PROJECT TITLE	IMPLEMENTING AGENCY	PROJECT DESCRIPTION	COMMENTS
8. Assistance/Technology Transfer Concerning the Production of Electronic Navigational Charts	Department of Environment and Natural Resources - (NAMRIA)	The project is designed to develop our capability to produce Electronic Navigational Charts (ENC) of Philippine waters that comply with the standards set by the International Maritime Organization (IMO) and International Hydrographic Organization (IHO).	Assistance is being requested from the GOJ due to the fact that Japan is the leading member-state of the East Asia Hydrographic Commission (EAHC).  The NAMRIA is requesting the GOJ to provide the necessary Japanese experts, training and equipment to

I. Proposed Title

PROJECT TYPE TECHNICAL COOPERATION ON INDUSTRIAL  
STANDARDIZATION, TESTING AND TRAINING

II. Implementing Agency

1. *Name of the Implementing Organization*

Bureau of Product Standards  
Department of Trade and Industry (BPS-DTI)

2. *Proposed Site*

Metro Manila, Philippines

3. *Outline of the Implementing Organization*

The Bureau of Product Standards is the Philippine National Standards Body mandated to promote, enforce and coordinate standardization activities through the following programs:

1. Standards Development
2. Product Certification
3. Product Testing
4. Technical Assistance
5. Quality and Laboratory Systems Accreditation

4. *Organizational Setup*

The Bureau of Product Standards was created through Executive Order No. 133 on 27 February 1987 as one of the Bureaus under the Department of Trade and Industry. Its main objective is to ensure that products manufactured, produced and distributed are in accordance with established quality standards whether national or international standards. This involves certification and testing of locally manufactured and imported products.



### 5. Annual Budget

Annual budget of the Bureau of Product Standards from 1993 to 1996 is shown as follows:

	<i>(In thousand pesos)</i>			
	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>1996</i>
Personal Services	6,408	7,876	8,641	9,860
Maintenance and Operating Expenses	4,748	3,831	5,465	7,638
TOTAL	11,156	11,707	14,106	17,498

## III. Project Proposal

### 1. Background Information

#### 1.1 Industrial Standardization in the Philippines

The issuance of policies to be enforced for standardization under E.O. 133 can be seen as the basis for the foundation for industrial standardization activities in the country. While standardization was provided for in the enactment of Republic Act 4109 in 1964 activities for standardization only heightened in the mid 1980's.

The industrial standards system in the Philippines is administered on the basis of the Bureau of Product Standards' development and issuance of Philippine National Standards (PNS), the Philippine Standard Certification System (PS Mark) and the Import Commodity Clearance Scheme (ICC) for imported products.

At the end of 1995, there were more than 1,500 standards established covering product specifications, code of practices and test methods. Fifty (50) standard specifications are under mandatory implementation and the rest are under voluntary implementation. Mandatory certification or implementation of standards is implemented for health and safety reasons such as those for construction materials, fire fighting equipment and electrical products.

Under the PS Certification Marking System, there are to date, 672 companies under 115 product groups that have been awarded the PS Mark License.

## 1.2 Problems in Testing

With the increasing demand for testing and certification of products to meet domestic and international requirements of standards, facilities to test products to ensure compliance especially for export oriented products are needed. The requirements for testing especially for safety is a major component for acceptance of products in the market. Testing facilities in the Philippines are inadequate and equipment are outdated compared with our ASEAN counterparts.

To augment its capability for testing requirements, BPS has embarked on a program of accrediting laboratories. This program though successful, has not provided the needed infrastructure to meet the testing requirements of Philippine industries.

Testing in the Philippines is done by government regulatory agencies and testing institutions and also by a number of private laboratories operating for commercial purposes.

While a number of these laboratories operate according to international guidelines, facilities and resources remains inadequate to meet the demands for testing services of buyers and suppliers. Also with APEC, WTO and ASEAN agreements, there is a need to upgrade or build up infrastructure for testing for the Philippines to be able to compete in the world market and to comply with international agreements and commitments.

With trade liberalization and the globalization of the world economy, Philippine industries must be supported by technical facilities for testing, inspection and certification. Without these support facilities and infrastructure, these industries cannot compete not only in the world market but even in domestic market.

## 2. *Rationale for the Proposal*

### 2.1 Continuance of the Project Phase I

The proposed project will be Phase II of the existing Project Type Technical Cooperation on Industrial Standardization and Electrical Testing

Project between the Governments of the Philippines and Japan which will end on August 1997.

The success of the existing project has been realized even in the early phase of its implementation. The number of companies in the electrical industry served by the BPS Testing Center has increased from 225 in 1994 to 336 in 1995 and the number of test parameters conducted has likewise increased from 7, 897 in 1994 to 18,120 in 1995.

Although the existing BPS-JICA Project is successful, the product coverage is limited and cannot service the other sectors of the electrical industry whose needs for testing and product certification is equally important.

The product coverage of the existing project is limited only to Electric Wires and Cables, Lamps and Related Appliance and Electrical Wiring Devices.

## 2.2 Climate of Change

The increase in demand for testing particularly from the electrical industry has grown dramatically in the past two years. The demand is attributed to the increase of companies being certified by BPS, the mandatory implementation of standards due to government regulations for safety and health reasons, testing of products for export and compliance to WTO, APEC and ASEAN agreements on alignment to international standard, product certification and testing. Consumers and the more sophisticated markets are now demanding from government for evidence of testing.

## 2.3 Testing and International Trade

The need for reliable testing of goods and materials has for many years, presented an effective non-tariff trade barrier to most countries. As mentioned above on compliance with WTO, APEC and ASEAN agreements, there is now a demand that products from overseas be tested for compliance with appropriate specifications or local regulations before these are sold in the market.

The agreement on Technical Barriers to Trade under the World Trade Organization-General Agreements on Tariff and Trade (WTO-GATT) requires its signatories to accept test reports and product conformity certificates from the country of origin, provided that these are tested by laboratories that have adequate resources and facilities and can comply with testing requirements as specified in international guidelines .

Recently the Asia Pacific Economic Cooperation declared freer trade in the region through alignment of Standards, infrastructure development,

mutual recognition arrangements on testing, certification and accreditation. Among the initial priority products identified by APEC for implementation are electrical and electronic products including electrical appliances.

### 3. *Objective Of The Project*

The project is aimed to support the testing, certification and training needs of the Philippine industries.

### 4. *Project Coverage and Activities*

#### 4.1 Establishment of Electrical Appliance Testing

The testing of electrical appliances will be focused on heating appliances, motor operated appliances and electronic appliances. For safety reasons and to comply with APEC priority products for alignment, implementation of the standards for these products are mandatory in the Philippines. At present there is no independent third art laboratory that test electrical and electronic appliances.

#### 4.2 Establishment of Electromagnetic Compatibility Facility

Electromagnetic Compatibility (EMC) is a major requirement for compliance with international standards. Electromagnetic Interference causes electrical and electronic malfunction, prevent proper use of radio frequency spectrum, ignite flammable or other hazardous atmospheres and may even have direct effect on human tissue if not properly contained. In the European Community, the EMC directive states that by 1995, every company that manufactures or imports electrical or electronic products will have in place measures that will enable its products to comply with the EMC directives or requirements. Recently, APEC economies also adopted the same position on EMC.

The proposed EMC facility will provide manufacturers access to testing of EMC and EMI which is not available in the Philippines at present.

#### 4.3 Training for Industries

The training will be focused on Training of Trainers on Product Testing, Certification, Quality Control and Standardization. Training will likewise be given to product managers and engineers on the various requirements on testing, certification and Philippine and International Standards.

The timetable and schedule of implementation of the project is shown in Annex A.

5. *Benefits of the Project*

- 5.1 Manufacturers of Electrical Appliances will be able to have their products tested and certified to Philippine and International Standards by an independent third party laboratory. At present there is no third party laboratory in the Philippines which can certify conformance to international or national standards on electrical/electronic appliances.
2. The EMC facilities will not only be beneficial to the electric appliance industry but will also be able to service the needs of the telecommunication and electronic industries.
3. Through Mutual Recognition Arrangements (Bilateral, Plurilateral) by the Philippines on Testing and Certification with other economies, products that are tested by the laboratory will no longer be retested by the importing economy.
4. Philippine manufacturing industries, private organizations, academe and professionals will be able to avail of training courses on quality systems, quality control, certification, standardization and testing techniques for a particular industry or product sector.
5. The establishment of the project will enable the Philippines to comply with testing infrastructure development as agreed in APEC.
6. Protect consumers and the public from sub-standard products.
7. Instead of sending samples abroad for testing, manufacturers will be able to have their products tested in the country.
8. Compliance to international standards, and GATT-WTO agreements .
9. Provide Small and Medium Enterprises with facilities for product improvement.
10. Test data obtained or generated from the laboratory will serve as basis for standards development and as reference data for manufacturers in product development and improvement.

6. *Expected JICA Experts And Their Fields*

1. Long Term Experts ( 5 years )
  - 1.1 Chief Adviser ( Team Leader ) (1)
  - 1.2 Project Coordinator (1)
  - 1.3 Electrical Appliance Testing Expert (1)
  - 1.4 Electromagnetic Compatibility Testing Expert (1)
2. Short Term Experts ( 5 per year )
  - 2.1 Laboratory Management Expert
  - 2.2 Trainor for Product Certification Quality Control, Standardization and Testing Techniques
  - 2.3 Electrical/Electronic Appliance Testing
  - 2.4 EMC Testing

7. *Counterpart Training In Japan ( 3 Participants Per Year)*

1. Laboratory Management (3)
2. Electromagnetic Compatibility (3)
3. Electrical/Electronic Appliance Testing (4)
4. Administration (2)
5. Trainors Training (3)

8. *Required Equipment*

- 8.1 Equipment to be requested from the Japanese Government.
  - 8.1.1 Laboratory and Test Equipment for Electromagnetic Compatibility, Electrical and Electronic Appliances
  - 8.1.2 Equipment for Technology Transfer and Training
    - Video Cameras and editing equipment, printing and binding equipment
  - 8.1.3 Data processing equipment
    - Computers and accessories, computer softwares
  - 8.1.4 Vehicles
  - 8.1.5 Others

9. *Budgetary Requirements (5-Year Period)*

	<i>(In thousand pesos)</i>	
	Requested foreign assistance	GOP Counterpart
<b>Personal Services</b>		
Experts	450 manmonths	---
Counterparts	---	14,000 manmonths
Laboratory Equipment, etc.	120,000	---
Training	15 trainees	---
Maintenance and Other Operating Expenses		
<b>Capital Outlay</b>		
Building	---	390,000*
Furniture and Fixtures	---	50,000*

\*BPS will request funding from DBM to build a building that will house not only the requested facilities for this project but also the facilities that it received under the ongoing BPS-JICA Project which amounts to at least 300 Million Yen.

**IV. Project Facilities**

1. *Building and Equipment*

BPS will request the Department of Budget and Management for funding the construction of a building to house the facilities for this proposed project. Information regarding the Project site will be provided later.

This building will cover a total area of approximately 7,000 square meters to house the laboratories, training rooms, and administrative offices. This building will be equipped with all the necessary electrical, mechanical, environmental and pollution control equipment in order to meet international laboratory standards and practices.

The building will also accommodate the present test facilities and equipment for the Phase I Project. At present the BPS Laboratory is located in rented facilities in Bicutan, Taguig, Metro Manila.

The proposed floor area allocation for the different laboratories, offices, training facilities, meeting and conference rooms are shown in Annex B



ANNEX B

PROPOSED BPS TESTING CENTER BUILDING

First Floor  
TEST AREAS

Lamps Testing Room	100
Ballast Testing Room	50
Luminaires Testing Room	50
Lamp-related products testing Room	50
Lamp Life Test Rack Area	150
Wiring Devices Testing Area	150
Endurance Test Area	150
Wires and Cables Test Area	150
Temperature Controlled Room	100
Oven Test Area	100
Chemical Test Area	30
Materials Testing Room	100
Household Appliance Test Area	200
Motor Operated Appliance Test Area	200
Anechoic Room	150
Environment Test Room	100
EMC Test House (detached from main buil	500
Tensile Testing Room	200
General Testing Room 1	75
General Testing Room 2	75
General Testing Room 3	75
Incoming Samples Stockroom	300
Outgoing Samples Stockroom	100
Equipment Stockroom	150
Samples Preparation Workshop	50
General Workshop	50
Central Calibration Room	50
Generator Room	50
Training Room 1	80
Training Room 2	80
Meeting Room	80
Trainees' Quarters (annex bldg)	200
Samples Reception Room	50
TOTAL (1st Floor)	3995

## ANNEX B

### *Second Floor*

General Testing Lab. 1	200
General Testing Lab. 2	200
Instrumentation Room 1	75
Instrumentation Room 2	75
Instrumentation Room 3	75
Instrumentation Room 4	75
Chemical Stockroom	50
Oven Room	50
Meeting Room 1(conference Hall)	100
Meeting Room 2	100
Meeting Room 3	60
Meeting Room 4	60
Visitors Lounge	75
Library	300
Cafeteria	200
Computer Room	50
Printing Room	50
Audio Visual Production Room	50
Storage Room	100
Director Room	30
JICA Staff Room	50
JICA Experts Room	100
JICA Meeting Room	30
Engineer's Room	100
BPSTC Administration Room	100
Laboratory Accreditation	50
Clinic	50
<b>TOTAL (2nd Floor)</b>	<b>2455</b>
<b>TOTAL (1st and 2nd Floors)</b>	<b>6450</b>
<b>Ancillary Areas (15% of Grand Total)</b>	<b>967.5</b>
<b>TOTAL</b>	<b>7418 sq. meters</b>

FIELD/ITEM		Y E R					REMARKS	
		Before Start	Year 1(98)	Year 2(99)	Year 3(00)	Year 4(01)		Year 5 (02)
<b>INFRASTRUCTURE</b>								
1	Building Construction							This building will house all the testing laboratories of the BPS Testing Center and training facilities of the BPS.
1.1	Preparation	■						
1.2	Basic Design Study		■					
1.3	Detail Design			■				
1.4	Tender				■			
1.5	Construction				■	■		
1.6	Final Inspection						■	
1.7	Start of Operation						■	
2	Establishment of EMC Facility							
2.1	Design		■					
2.2	Tender			■				
2.3	Construction of chamber				■	■		
2.4	Installation of Control Equipment						■	
2.5	Final Inspection						■	
2.6	Start of Operation						■	
3	Equipment Procurement							
3.1	Identification of Equipment	■						
3.2	Tender			■				
3.3	Procurement				■	■		
3.4	Installation						■	
3.5	Final Inspection						■	
3.6	Start of Operation						■	
<b>TECHNOLOGY TRANSFER</b>								
4	Transfer of Testing Technology							
4.1	Testing of Heating Appliances				■	■	■	
4.2	Testing of Motor Operated Appliances					■	■	
4.3	Testing of Electronic Appliances						■	
4.4	EMC Testing					■	■	
5	Training of Trainers on Product Testing and Quality Control/ Standardization							
5.1	Identification of Training Needs			■				

FIELD/ITEM	Y E R												REMARKS				
	Before Start	Year 1(98)			Year 2(99)			Year 3(00)			Year 4(01)			Year 5 (02)			
5.2 Formulation Curriculum				■													
5.3 Formulation of Schedule Scheme				■													
5.4 Conduct of Training Programs					■	■	■										
5.5 Evaluation of Training Scheme							■										
<b>TRAINING SERVICES</b>																	
6 Training on Product Testing																	
6.1 Identification of Training Needs				■													
6.2 Formulation Curriculum				■	■	■											
6.3 Formulation of Schedule Scheme					■												
6.4 Conduct of Training Programs							■	■	■	■	■	■	■	■	■	■	■
6.5 Evaluation of Training Scheme									■		■		■			■	
7 Training on Quality Control & Standardization																	
7.1 Identification of Training Needs				■													
7.2 Formulation Curriculum				■	■	■											
7.3 Formulation of Schedule Scheme					■												
7.4 Conduct of Training Programs							■	■	■	■	■	■	■	■	■	■	■
7.5 Evaluation of Training Scheme									■		■		■			■	
<b>ALIGNMENT OF OPERATIONS WITH APEC and ASEAN</b>																	
8 Mutual Recognition Agreement with other ASEAN Counterpart Laboratories																	
8.1 Initial contacts with counterpart labs.							■										
8.2 Assessments of each other's labs.							■	■									
8.3 Preparation of Documents								■									
8.4 Formallzation of M.R.A. s									■								
<b>INFRASTRUCTURE DEVELOPMENT</b>																	
9 Implementation of ISO/IEC Guide25*																	
9.1 Documentation of all Laboratory Procedures							■	■									
9.2 Implementation of ISO Guide 25 in BPS' new Laboratory Operations								■	■	■	■	■	■	■	■	■	■
9.3 Accreditation to ISO Guide 25 by a foreign body (if possible)											■						
10 Alignment of Standards to ISO/IEC Standards																	

FIELD/ITEM	Y E R															REMARKS			
	Before Start			Year 1(98)			Year 2(99)			Year 3(00)			Year 4(01)				Year 5 (02)		
10.1 Review of all existing non-ISO/IEC PNS Standards																			
10.2 Revision to ISO/IEC Standards																			

TENTATIVE LIST OF EQUIPMENT TO BE REQUESTED FROM THE GOVERNMENT OF JAPAN  
UNDER THE PROPOSED "INDUSTRIAL STANDARDIZATION, TESTING AND TRAINING" PROJECT

Equipment	Estimated No. of Pieces
Feeler Gauges	1lot
Digital Power Meters	8
Temperature Recorders	10
Temperature/Humidity Chamber	2
Temperature/Humidity Chamber	2
Waveform Analyzer	2
Spring operated impact test apparatus	1
Push Pull Gauge	2
Torque Meter	5
Accelerated Aging Chamber	1
Cord Flexing Tester	1
High Voltage Tester	2
Endurance Tester for thermostats	1
Switch Endurance Tester	1
Cord Flexing Tester	1
Torque Screwdrivers	5
Video Micrometer with printing accessory	1
Profile Projector	1
Test Nail	2
Micrometer/Caliper Set	1lot
Pulse Generator 1	1
Pulse Generator 2	1
Waveform Analyzer	1
Gas Detector	1
Mini fume hood	1
Heating Ovens	4
Integrated Sphere	1
Colorimetry Set	1
Standard Lamps -flux	20
Standard Lamps -color	20
Photometric Measuring System	1
Electrical Calibration System	1lot
Temperature Calibration System	1lot
Constant Temperature Chamber	3
Vibration Test System	1
Mechanical Drop Tester	1
EMC Equipment and housing	1
FTIR Spectrophotometer	1
Atomic Absorption Spectrophotometer	1
Universal Testing Machine	1
Rain Test Apparatus	1
Weather Ometer	1
Salt Spray Tester	1
Gas Chromatograph	1
Variable Power Supply	10

Equipment	Estimated No. of Pieces
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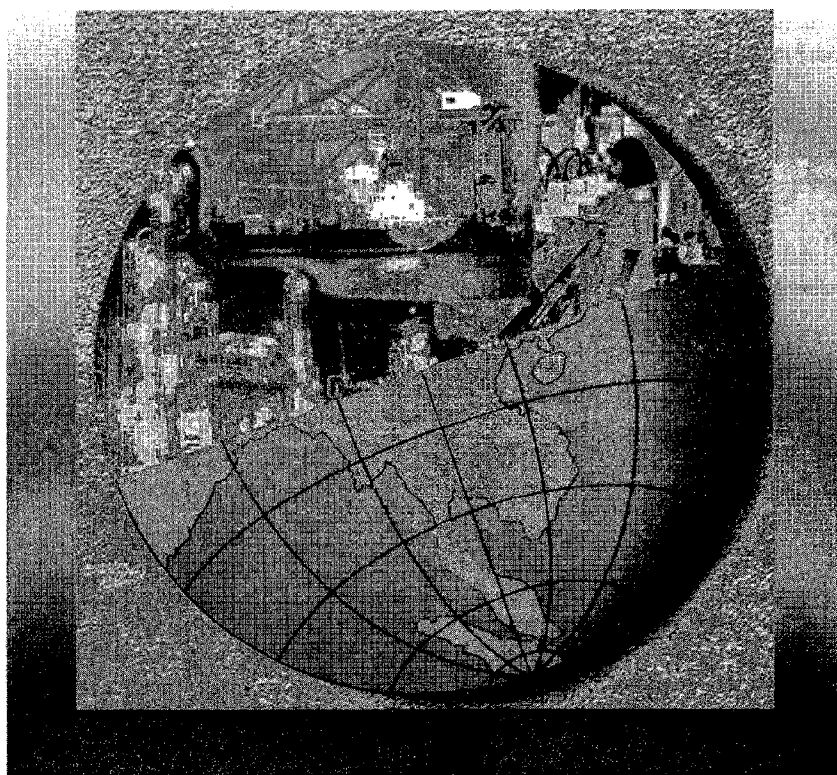
Voltage Regulator	5
High Discharge Capacity Tester	1
Reserve Capacity Tester	1
High Speed Charger	1
Audio visual Training Equipment	
Video Editing Machine	1
VHS Video Camera with accessories	2
Color Monitor for Video Playback and editing	4
Slide Projector with Screen	2
VHS Player/Recorder	3
Computer System for Computer Graphics	1
Video Projection System	1
Overhead Transparency with autozoom lens	4
Computer System	10
References, Books, Softwares on Quality	1lot
Electronic Copy Board	4
Xcopying Machine	2
Others	
Electrical Tools	10
Light Truck/Open Type Van	1
Distilling Apparatus	2
Hand Lift	2
Thermohydrograph	10
Sample Preparation Machine	1
Clamp meter	4
Others	1lot

\* This list is based on BPS' estimates only. Final listing of equipment will be finalized after consultation with a separate JICA Exerts Mission to be dispatched later (based on BPS's experience in its first Project with JICA.

3. フィリピン側からの入手資料

① DTI 1995 Annual Report

## Department of Trade and Industry



## 1995 Annual Report



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### Cover Story

The sparkle in the country's export and investment scene during the past year is proof that economic growth and a stable democracy can go hand in hand. DTI policies and programs support the go-for-growth reform agenda anchored on global competitiveness and people empowerment. The liberalized economic climate opens windows of opportunity for future sustainable and equitable growth.



## Vision

We are committed  
to bring the Philippines to its rightful place  
in the family of nations, proud and free.

With business, we are an active and leading partner  
in propelling the Philippines toward a dynamic and thriving economy.

Our success is anchored on global competitiveness,  
with social responsibility and consumer welfare  
as our guiding principles.

We are committed  
to bring a showcase of excellence in public service.  
Our employees are our most valuable resource.

We foster an environment  
where their creativity, innovation,  
professional and personal growth  
find full expression in an organization  
that is united in purpose and action.

In all these we adhere strictly to the tenets of  
professionalism, integrity and transparency.



## Mission

We, the DTI family  
are committed to create an environment  
conducive to sustainable industrial growth and development  
that generates jobs in locally competitive industries,  
especially in the countryside.

In pursuit of this commitment,  
we serve as the catalytic link among business,  
consumers and other government agencies.

We shall adopt sound trade and industrial policies.

We shall provide timely and world-class services  
that answer our clients' business needs for marketing,  
production, financing and human resource development.

We shall safeguard consumer welfare.

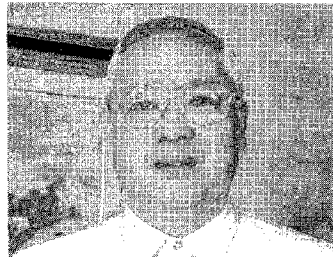
In the same way we relate with our clients,  
so we shall relate with each other  
as we promote an internal environment that fosters professional growth.

In the attainment of this mission and for love of country,

we bind ourselves to the highest standards of  
competence, integrity and dedication.

## Secretary's Message

**F**our years into the Ramos watch, the Philippine economy is back on track and set to flourish. Optimism is in the air and a sustainable economic future is in sight. For Philippine trade, industry and investments, all signs are GO.



DTI targets have not only been met but exceeded. What is more, investors increasingly choose to locate outside Metro Manila and in far-flung rural regions, bringing with them vital jobs and income opportunities. Investments in 1995 went into more large-scale projects, but there were also major investments in SME ventures. Moreover, investments expanded the countryside export production base, leading to a dramatic rise in exports. The betting is good that this 1996 will ring in vast improvements as more new export factories start commercial operations.

In a nutshell, trade and industry performance over the 4-year period of 1992-1995 gave the country the needed push for its twin goals of global excellence and people empowerment. Consider the results:

Growth Rates 1992-1995				
	1992	1993	1994	1995
GDP	1.2	1.6	5.8	7.3
Industry	0.45	1.6	5.8	7.3
• Mining & Quarrying	-7.0	0.0	0.0	0.0
• Construction	0.0	0.0	0.0	0.0
• Manufacturing	0.0	0.0	0.0	0.0
• Utilities	0.0	0.0	0.0	0.0
Services	1.9	4.2	0.0	0.0
Interest Rate	11.75	12.75	12.5	16.0
Inflation Rate	3.1	3.1	7.0	3.0

Source: DTI MIS/NEDA

### Industry Leads Sector Growth

7.3% growth in industry last year, with utilities, manufacturing and construction as the leading subsectors. This from a negative 0.45% in 1992 which we pushed to 1.6% in 1993 and 5.8% in 1994. Even the minus 7% record of the mining sector in 1994 was reversed to a 5.9% growth last year.

### Jump in Exports

Earnings of US\$17.3 billion, up 29% from 1994 and 5.5% over the 1995 target of \$16.4 billion. Exports from 1992 to 1995 enjoyed a 4-year average growth rate of 18.7% vs. the average 15% called for in the Philippine Export Development Plan. This against historical export growth of 2.5% over 1980-1990.

### Steady Investment Inflows

P335 billion in BOI-approved investments - 1.7% better than the P300 billion target for the year. When investments in the economic zones of Philippine Economic Zone Authority (PEZA), Subic Bay Metropolitan Authority (SBMA) and Clark Development Corporation (CDC) are added, total 1995 investments commitments amount to P405.3 billion. Over the 4-year period 1992-1995, investments through the four promotional agencies reached P1,102 billion. The good news is, increasingly more investors are choosing countryside locations. For example, 94% of the new BOI projects in 1995 prefer locations outside the National

Capital Region. These have the potential to create 80,866 new jobs once onstream.

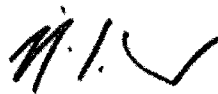
### **Access to Credit**

Some P1.2 billion was released to micro-enterprises for the cumulative period 1992-1995. Moreover, P79 billion was loaned out to SMEs in 1995 under the mandatory provision of the Magna Carta for SMEs. This is a 5-fold increase from the P16 billion made available to SMEs in 46 years from 1946-1992.

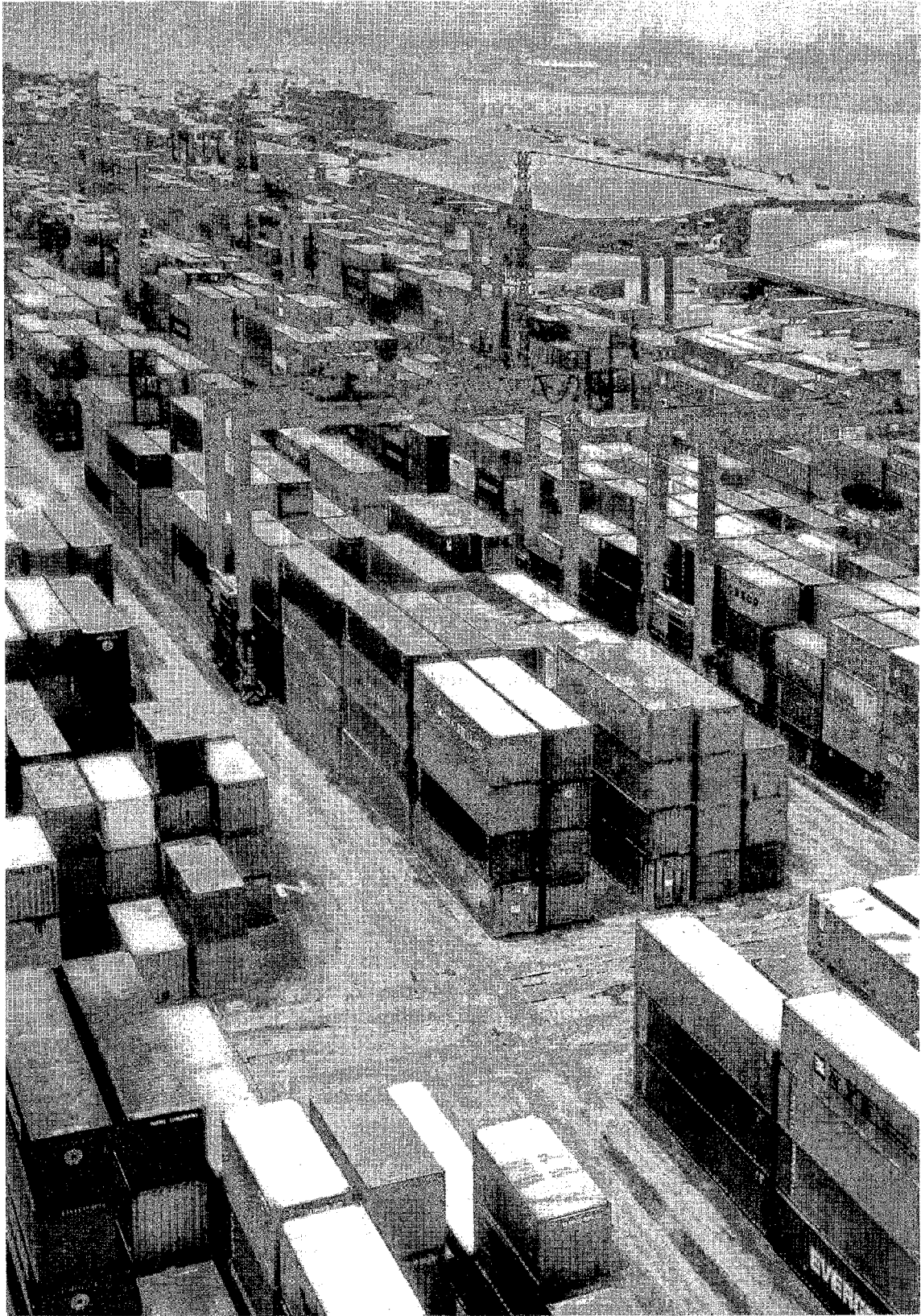
### **Consumer Welfare**

98.6% compliance rate with fair trade laws among the almost 200,000 firms monitored in 1995. This is consistent with the 98% average compliance rate of the 1992-1994 period. Consumer Welfare Desks in strategic locations nationwide led to speedy resolution of consumer complaints. This avoided long-drawn out mediation/arbitration processes.

Behind the above results were several key factors, the most significant being stable macro-economic policies and bold liberalizing reforms which created a business-friendly climate within a framework of democratic capitalism.



*R. S. Navarro*



## Exports

### Armed for Global Competition While Fighting Poverty at Home

**Why export? Exports address the problems of unemployment, lack of foreign exchange, the crowding of industries in city centers and inappropriate technology. Once these problems are addressed, poverty will go down. Countryside factories will raise rural living standards. Thus, the goal of empowering people is attained. The poor are not side-lined but become active and productive doers, able to help themselves because they have gainful work.**

Year	Value (in US \$ Billion)	% Change
1992	12.4	10.6
1994	15.1	21.8
1995	17.1	25.9
1-year total	92.3	

Source: DTI MIS/NEDA

Our efforts to promote exports in the past year have yielded good results:

### More Exports to ASEAN/Asian Partners

Traditional markets like the US and Japan continued to account for over half of the country's exports. But the volume and value of goods shipped to ASEAN and Asian trading partners show the most notable improvements. Last year, shipments to Thailand rose 119.6% while those to Singapore improved 40.3%. South Korea took in 51.4% more goods. Altogether, Asian partners - including



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	1992	1993	1994	1995	1995/94
Japan	1.51	1.53	1.67	2.77	63.8
Singapore	0.25	0.33	0.71	0.93	31.8
Hong Kong	0.36	0.51	0.63	0.82	29.0
Thailand	0.09	0.17	0.26	0.39	48.2
Taiwan	0.29	0.35	0.45	0.62	38.0
Korea	0.17	0.23	0.33	0.44	33.3
Malaysia	0.12	0.18	0.23	0.31	34.8
PRC	0.11	0.17	0.16	0.21	31.3
Indonesia	0.04	0.07	0.07	0.11	27.7
Vietnam	0.05	0.06	0.06	0.12	22.2
India	0.008	0.01	0.01	0.02	20.0
Brunei	0.005	0.002	0.003	0.002	0.0

Source: DTI BETP

Japan - accounted for 41% of the country's exports in 1995. This exceeded exports to North America (US and Canada) which made up 36.4% of Philippine exports last year. The share of Philippine exports to ASEAN rose from just 5% of the total in 1992 to 12.8% in 1995 (\$522 million to \$4.8 billion). From a negative 14% export growth to ASEAN in the period 1991-992, exports rose by 63.7% from 1994 to 1995.

Moreover, of the country's top 15 markets, eight are Asian countries including fellow ASEAN Singapore and Thailand which are within the Top 10.

### Strong Growth for Both Traditionals and Nontraditionals

Both traditional and nontraditional exports posted strong growth. Led by copra and coconut oil with growth highs of 48.8% and 71.6% respectively, traditionals grew by an average of 29% to reach \$1.4 billion. The nontraditional lines improved by 28.8% but made up some 88% of the country's total export take.

## Ten Lead Exports Contribute 78.8% of Total

The country's top 10 exports contributed 78.8% of the export total. Some 57.4% came from two product lines - electronics and garments.

The 14 export winners contributed 70% of the total export take in 1995. These consist of: electronics, garments, metal and marine products, processed foods, furniture, gifts, toys and housewares, basket wares, holiday decorations, carrageenan and seaweeds, decorative ceramics, jewelry and marble.

## Promotional Thrusts

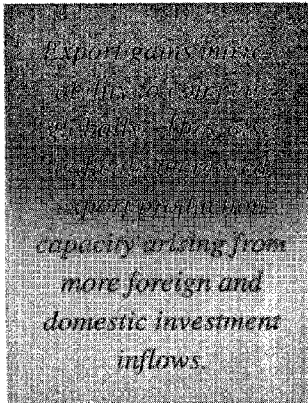
Vital to winning diversified markets and selling more Philippine products and services were the sustained promotional ventures undertaken by such promotive agencies such as the Center for International Trade Expositions and Missions (CITEM) and the International Coffee Organization - Certifying Agency (ICO-CA).

### CITEM

conducted 43 events last year, linking 2,174 exhibitors with 20,354 buyers, out of which negotiated orders of \$386.5m were

	1994	1995	1994	1995	1994	1995	1994	1995
	US\$	US\$	%	%	US\$	US\$	%	%
Total	652	100	11.7	100	615	100	17.1	100
Traditional	1.04	11.80	0.89	8.71	1.08	8.01	1.33	7.82
Non-Traditional	6.47	88.25	9.36	86.72	11.89	88.21	15.47	87.66
Special Transactions	0.26	2.65	0.22	1.57	0.31	3.78	0.45	3.32

Source: DTI/BETP



firmed up. Cumulatively, there were almost 200 promotion events held from 1992 - 1995 which linked over 6,000 exporters with some 60,000 foreign buyers. From this, more than \$900m in negotiated orders were booked.

### **Planning for the Long Export Haul**

The Philippine Export Development Plan (PEDP) for 1993-98 calls for promoting exports in tandem with foreign direct investments (FDIs). Effectively, the Philippines is positioned a viable and profitable location for investments and a source of world class exports. Trade becomes the tool to shift from unskilled labor-intensive to skill-intensive, and from high-volume standardized to high-value customized, goods and services. Trade-driven capital expands exports and brings in the latest modernizing technologies.

The PEDP calls for setting up basic industries as well - steel, petrochemicals, machinery and equipment - because there is need for a strong raw material base to create forward linkages that make related industries competitive.

Since competition is the name of the game, a comprehensive World Competitiveness Program is now in place. Export operations are to be streamlined - focused on 15 product lines with the highest potential for growth and dollar earnings. Niche marketing is key to strategy: North America, Europe, Japan, Greater China, Korea and ASEAN are viewed not only as single markets in themselves but as

gateways to other emerging markets. Our export efforts are now stronger because they are backed by reforms in trade, monetary, fiscal and administrative policies. Bank liberalization, tax and tariff changes and bureaucratic streamlining contribute to our competitive goals.

### Enhancement of the Export Environment

Passage of the 1994 Export Development Act (RA 7744) supplied the policy support for the country's export push. The Act allows a mix of tax and non-tax incentives to enable Filipino exporters to better compete in world markets. These include, among others, credit and financing facilities, creation of a Philippine Trade Center and duty-free imports of machinery and equipment. The Export Development Council is composed of private and government sector thinkers and doers. Collectively, the EDC oversees the execution of the World Competitiveness Programs.

	1992	1993	1994	1995	Total
USA	1.92	2.13	2.14	2.14	8.13
Japan	1.41	1.57	1.61	1.61	5.20
Spain	0.71	0.73	0.72	0.72	2.88
Germany	0.62	0.63	0.63	0.63	2.51
UK/ECU	0.55	0.57	0.57	0.57	2.26
France	0.46	0.47	0.47	0.47	1.87
Australia	0.41	0.40	0.40	0.40	1.61
Thailand	0.39	0.37	0.36	0.36	1.48
Germany	0.32	0.30	0.30	0.30	1.22
Taiwan	0.28	0.25	0.25	0.25	1.03
Korea	0.17	0.20	0.20	0.20	0.77
Malaysia	0.13	0.16	0.22	0.21	0.72
PHC	0.11	0.17	0.16	0.21	0.65
France	0.13	0.21	0.18	0.20	0.72
Taiwan	0.16	0.19	0.19	0.20	0.74
Australia	0.11	0.11	0.13	0.14	0.49

Source: DTI-BETP

**Export Winners**  
**Philippine Merchandise Exports**  
**1997-1999**  
**Million US Dollars**

	1997	1998	1999	2000	2001
Total Exports	1.57	18.41	19.15	17.41	18.12
Garments & Textiles	2.10	3.23	2.37	2.80	3.28
Basketwork	0.13	0.12	0.12	0.12	0.16
Hobbies & Novels	0.06	0.07	0.09	0.12	0.14
Decorative Ceramics	0.01	0.16	0.16	0.16	0.16
Jewelry	0.16	0.08	0.08	0.04	0.21
Furniture	0.18	0.29	0.21	0.23	0.30
Processed Foods	0.33	0.50	0.35	0.35	1.19
Marine Products	0.31	0.41	0.45	0.41	1.11
Seafoods	0.01	0.01	0.05	0.05	0.21
Marble	0.01	0.01	0.01	0.01	0.04
Electronics	2.73	4.32	4.19	7.85	15.89
Metal Products	0.34	0.45	0.59	0.61	2.01
Total Export Winners	6.35	7.92	9.33	12.91	35.29

Source: DTI-BETP

## Export Enterprise Development

Training programs for exporters upgrade enterprise productivity and expertise. Specific curricula have been developed and are offered for specific sectors - software, furniture, handloom weaving, fine jewelry, and processed foods, among others. Last year, for example, a total of 147 training events were conducted for almost 5,000 participants. About a third of the training was brought to the regions to disperse know-how and expertise. New courses were introduced to familiarize exporters with emerging business opportunities in identified markets for specific

product lines - opportunities made possible by changes in global trading rules and policies in light of the World Trade Organization and APEC initiatives.

Productivity missions to various Asian countries (garments, furniture and footwear to Taiwan, electronics to Singapore and furniture to Japan) exposed Filipino exporters to more effective/efficient systems of running their export operations.



# Investments

## For Job Creation and Countryside Growth

### Sustainable Investment Inflows

BOI approved 479 projects last year valued at P335.3 billion, 11.7% better than the year's target and with the potential to generate 80,866 jobs once the projects are onstream. Cumulatively, the 4-year period 1992-1995 drew in a total of P993 billion. Adding the investments channeled through the other investment agencies brings up the 4-year total to P1.1 trillion. In particular, bulk of the money inflows went to petrochemicals, cement, basic metal products as well as electric and electronic products.

A notable trend is the increase inflow in domestic investments. In the case of BOI-registered projects in 1995, over 60% of equity investments came from Filipinos. Even in the export processing zones managed by the Philippine Economic Zone Authority (PEZA), Filipinos ranked No. 4 with P3.6 billion, after the Japanese, Koreans and Americans. This is a far cry from the P477m which local investors plunked in in 1992.

But over the four-year span, 50% of investments went into manufacturing. Public utilities got 23%, and the power sector 18%.

Equity investments in 1995 reached P335.3 billion

- P233 billion or 69.5% from domestic sources
- P102.1 billion or 30.5% from foreign investors

The favored investment sectors in 1995 were:

Sector	Value in Pbilions	Share
Public utilities	66.3	19.7
Manufacturing	160.6	47.9
Tourism	1.9	0.6
Mining	1.7	0.5
Fisheries	1.3	0.4

Source: DTI-BOI

### **Increasing Asian Investments**

While the US was the top investor in 1995, ASEAN partner Thailand emerged as No. 2 followed by Saudi Arabia, Britain, and Japan in that order. On a cumulative basis during the 1992-1995 period, the ranking changes with US investors still on top followed by Thailand, Japan, Hong Kong, and Taiwan in that order. Other Asian countries among the top equity investors are Malaysia (No. 7), South Korea (No. 9), Singapore (No. 10).

### **Export Zone Investments**

Investments in the export processing zones managed by the Philippine Export Zone Authority (PEZA) in 1995 reached P52.2 billion or a 5-fold increase over 1994's P9.5 billion. In the 4-year cumulative period, investments amounted to P68.3 billion.

SBMA investments also increased 71% from P7.4 billion in 1994 to P12.7 billion last year, for a 4-year cumulative total of P29.9 billion.

Likewise, CDC investments grew by 28% from P4.3 billion in 1994 to P5.9 billion last year. From 1993-1995, cumulative total came to P12.2 billion.

Even in the export zones, more Filipino investors are coming in. While Japan is decidedly the leading investor,

*Investments are a top priority in the Philippine economic agenda not just to create wealth for the already wealthy but as the means to create jobs and opportunities for the Filipino. Investment policies are however geared not only for their job creating potential but also to introduce new technology and skills and their high-value-adding function to local resources.*



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Filipinos come second, followed by Koreans, Americans, Dutch and Taiwanese.

Job generation potential (zone projects have short gestation periods usually) is 121,823.

**Cumulative job generation** potential during the four-year period from all investment sources adds up to 755,426. These are distributed to various locations all over the country.

### **Competitive Advantages**

To bring in more investments, the country's competitive advantages were further sharpened - the better to convince investors that indeed the Philippines is a choice location where attractive returns and superior service on top of productivity and cost-cutting advantages are available.

**Investor friendly** measures assure business the government means business. In the past, amendments to the Omnibus Investments Code suspended nationality requirements for ASEAN investors and multilateral financial institutions such as the ADB and World Bank. Long term leases of private lands to foreign investors have been extended for an initial 50 years, which is further extendable for another 25 years.

We have Congress to thank for the spate of new legislation that has enabled the country to compete for investments with equally aggressive Asian neighbors in bringing in investments:

- The Power Crisis Act of 1993;
- The Foreign Investments Act of 1991 and its amendments;
- The BOT law and its amendment;
- The new Mining Law;
- The Creation of the Philippine Economic Zone Authority;
- The Landlease Act of 1994;
- The Bank Liberalization Act;
- The Agricultural Tariffication Act;
- The Oil Industry Deregulation Act of 1996;
- The adoption of Transaction Value as the primary system for customs valuation; and
- The Iron and Steel Industry Act.

**Top Investors in the Philippines  
Equivalent to US\$ 100 Million  
1970-1994**

	1992	1993	1994	1995	Total
USA	1.57	2.30	3.79	10.15	17.81
Thailand	0.829		1.48	5.71	7.99
Japan	1.85	3.04	2.72	3.69	11.30
Hong Kong	0.32	0.22	7.61	0.28	8.43
Taiwan	0.23	0.14	7.07	0.35	7.79
G. Britain	0.74	0.006	0.45	3.21	4.41
Malaysia		0.21	4.23	0.16	4.60
Netherlands	0.28	2.16	1.24	0.14	3.82
South Korea	1.95	1.11	0.25	0.06	3.37

Source: DTI-BOI

We shall have to rely on their continued nonpartisan support to continue the momentum for legislative and policy reforms that will advance the country's ability to compete in the new world trading order.

### **From Regulatory to Promotional**

Other reform measures make the Philippines more outward looking and more attuned to take quick advantage of new opportunities in the marketplace. They support export, investment and industrial initiatives.

**Easing Investor Entry.** Monopolies and cartels have been dismantled to ease investor entry into previously restricted sectors - automotive, telecommunications, banking, insurance, wholesale trade, domestic and international aviation, shipping and mining. The Foreign Investment Act of 1991 was amended to bring down the paid-up capital requirement for SMEs from US\$500,000 to \$200,000, while Negative List C was deleted.

**Infrastructure** build-up is being fast-tracked through two modes that allow foreign investor participation. One avenue is through the BOT law which allows the private sector to participate in public infrastructure development, including development of regional growth areas. Investors now increasingly prefer locations in the special growth zones which are deliberately located outside Metro Manila precisely to spread growth to the countryside. The master plans for such priority growth zones ensure a balance and complementation between industry and agriculture, between infrastructure and social sectors and between rural and urban development.

	1992	1993	1994	1995	Total
BOI projects	94.10	86.91	75.10	55.02	311.13
PEZA projects	2.36	8.89	9.66	62.29	83.30
SOBA	.00	8.60	7.46	12.71	28.77
EDC		1.90	4.30	1.99	8.19
Total	106.56	117.29	176.56	136.26	536.67

Source: DTI

A happy result is that the existing export processing zones, economic zones, industrial estates/parks and special development programs attract locators almost as soon as they are opened up. Among the popular locations are the four export processing zones administered by the PEZA, the

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economic zones of Subic and Clark and the special development or regional growth areas which are intended to particularly trigger industrial, tourist, agro-industrial enterprise development all throughout the Philippine countryside.

### **Enhanced Labor Productivity for Industrial Competitiveness.**

The DTI runs a pro-active program to create industrial peace and harmonious relationships between labor and management. For the period 1992-1995, a cumulative total of 746 companies have undergone orientations, 403 have been trained and 90 have actually organized Labor Management Councils. From 45 labor disputes reported in 1992, only 19 were reported in 1995, a 58% decrease.

Impact on productivity is visible. PAMCOR President and CEO Mr. N. Nokari, for example, reported a 19% increase in production volume from 27,000 units/year in 1993 to 60,000 units/year by the year 1997. Likewise, ROHM Electronics, Phils. Inc.'s General Manager Minoru Tabata, stressed that the company is on expansion mode to become the largest MCR (micro-chip resistor) manufacturer in the whole world with production capacity of 2 billion units/month. Both company officials attributed this to the productivity arising from the stable industrial peace situation brought about by the installation of Labor Management Councils where labor and management concerns are handled.

Aside from the CALABARZON - the very first regional growth zone to be set up - other new growth centers disperse development countrywide:

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- Central Luzon Development Program, which is a masterplan to guide the area's development from 1995 to 2010. The focus is on knowledge and skills-intensive investment projects together with high value-added agricultural activities.
- Northwestern Luzon Growth Quadrangle whose development is anchored on the potentials of the Laoag-San Fernando-Dagupan- Baguio area. The North Quad is intended to be the country's springboard to Japan and the Asian NICs - South Korea, Taiwan and Hong Kong.
- The Cagayan de Oro-Iligan Corridor aims to fast-track industrialization of Region 10. Along the northern coast of Mindanao, CIC is now home to major industrial and agricultural enterprises and makes an ideal location for investments in engineering and metalworks, construction and infrastructure, oleochemicals and basic chemicals, agriculture, aquaculture and agro-forestry ventures.
- The Samar Island Special Development Project is special in its focus on livelihood and poverty alleviation projects - Samar is in one of the country's poorest regions and the aim is to uplift the most marginal 30% of its population.
- The Panay-Negros Agro-Industrial Development Project or PANAI seeks to increase agricultural production and expand crop diversification. This should enhance access of poverty groups to productive resources and basic services.
- South Cotabato, Sarangani and General Santos City or what is called the SOCSARGEN area in Mindanao is within the growth corridor that is easily accessible to the markets of the Brunei-Indonesia-Malaysia- Philippines-

East ASEAN Growth Area (BIMP-EAGA). From a sleepy southern backwater, SOCSARGEN has become the country's frontdoor to an ASEAN subregional growth center, considered East Indonesia's gateway to the world.

- The BIMP-EAGA initiative gives Mindanao an excellent opportunity to take an active economic role in the EAST ASEAN sub-region. A developed agribase and abundant skilled labor readily complement the needs of partners East Indonesia and East Malaysia as well as Brunei.

With such regional growth areas in place, the benefits of economic growth, in the past concentrated in the Metro Manila area, can become more dispersed, thus opening not only jobs but other income earning opportunities country-wide.

### **More Measures for Countryside Growth**

We continue to strengthen production, marketing and managerial capabilities of small and medium enterprises which comprise over 95% of the country's total enterprises.

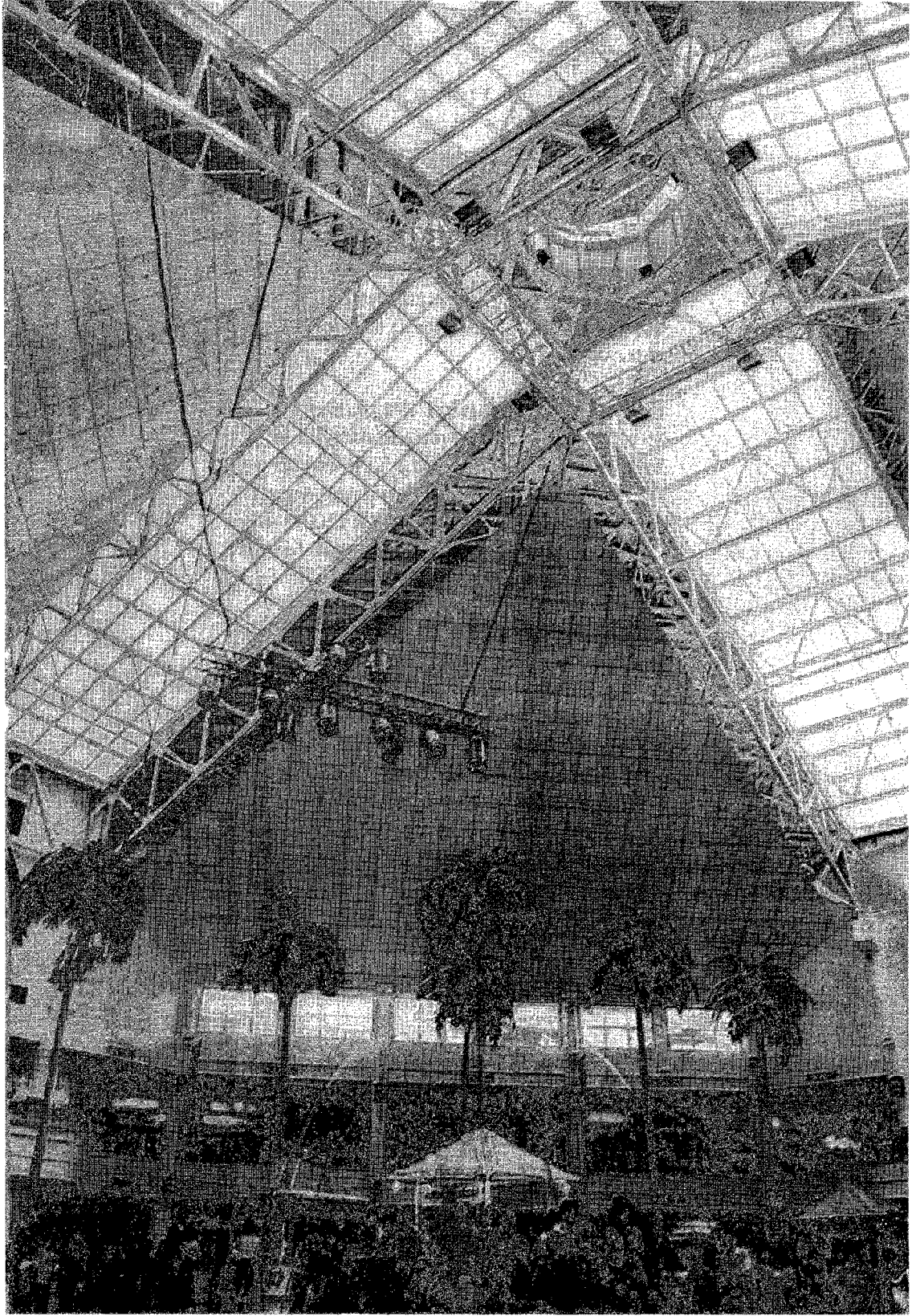
**SME Policy Review.** At the first SME National Leaders Summit in mid-June 1995, a review of government institutions, policy and funding support for SMEs was conducted.

The groundwork to establish the APEC Center for Technology Exchange and Training for SMEs (ACTETSME)

in Los Baños was undertaken. The center will promote economic and technical cooperation among SMEs in the APEC region, mainly through an information networking system to enable member-economies to share training and technology resources.

**SME Data Banks** SME data banks are being set up nationwide to provide ready information to small business entrepreneurs and to aid policy formulators and program implementors. It will also ease monitoring and assessment of SME development activities. NSO has so far completed the database for two pilot areas - San Fernando, La Union in Region 1 and Davao City in Region XI.

**SME Access to Financing** The banking sector's loans to SMEs were raised to P79 billion as required by the mandatory allocation provision of the Magna Carta for Small Enterprises. This is a 5-fold increase from the P16 billion loaned to SMEs from 1946 - 1992. Under the Small Business Guarantee and Finance Corporation (SBGFC), P1.4 billion worth of regular and automatic guarantee coverages for SME loans were provided. Another P288.4m under the Small Enterprise Financing Facility was released to augment bank resources to meet SME financing for manufacturing, processing, agribusiness and service ventures.





## Consumer Welfare

At the heart of all DTI work is the welfare of Filipino consumers - whether they be in the cities or in far-flung rural towns. For each Filipino is a consumer. By raising incomes and opening up job and livelihood opportunities through exports and investments, the consumer is enabled - EMPOWERED - not only to choose his purchases according to his means but in fact to have more spending power. This happens because he is now WITHIN THE ECONOMIC MAINSTREAM and not outside it. He becomes a PRODUCTIVE PARTICIPANT in the development process.

DTI's work in consumer advocacy and protection takes two tracks :

- REGULATORY which involves developing standards for the quality of products and services on the one hand, and enforcing fair trade laws and regulations, on the other hand, and
- a MOBILIZING role to develop consumer awareness and educate consumers to expect:
  - Sound ethics from business and the trades
  - Safety in products and services
  - Respect and care for the well-being of consumers.

On both aspects, DTI implemented the following key programs:

**Product Standards.** 104 standards were developed, amended, revised and adopted in 1995. For the 4-year period 1992-1995, a total of 439 standards were formulated for the following products - toys, processed foods, paint and chemicals,

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petroleum products and construction materials. Training courses and seminars were given to 2,346 industry participants to acquaint them with the various standards. Mandatory standards compliance for the period reviewed was above 90%.

**Certification Services.** Involves issuance of PS marks to signify consistent compliance with quality and safety requirements. In the year past, 481 firms were given certifications. Import Commodity Clearances were issued as well.

**Price Stabilization.** Local Price Coordinating Councils at the provincial, town and city levels oversee the price and supply situation of basic goods and address issues and problems especially in periods of calamity or emergencies. There are over 600 rolling stores, *bantay bilihin tindahans* and *bagsakan* centers ready to reach depressed communities during critical supply periods.

**Education and Information.** Some 2,313 briefings and public hearings to reinforce consumer awareness about rights and responsibilities were held during the period. DTI helped set up 160 consumer organizations who now act as its partners in the work of consumer advocacy and information. DTI acts as the secretariat of the National Consumer Affairs Council.

### **Social Reform Agenda**

While consumer welfare and protection represents a big chunk of the agency's social reform agenda program, there are other unique programs that specifically aim to more equitably share the 'economic pie' with the most disadvantaged sectors. These include:

### **Credit for the Poorest of the Poor**

, a financing facility which has so far approved P26.4m worth of loans through 50 NGOs that were in turn re-lent to 1,600 micro-ventures and created 5,000 jobs.

### **Helping Farmers with Business Start-ups**

DTI's Small Industrial Technology Transfer and Development Program aims to assist farmers and small landowners affected by the Comprehensive Agrarian Reform Program either to start up small business ventures or to teach them skills for gainful employment. To date, the program has organized 3,146 training events/seminars, 824 pre-investment and feasibility studies, 2,504 market linkages and 216 trade fairs for over 226,434 agrarian reform beneficiaries. Some 125 common service facilities and pilot projects were set up to augment rural production capabilities.

### **Regional Dispersal Policies**

Even the incentives package under EO 226 contains policies specifically aimed to balance economic development and reduce regional disparities. In 1996, the goal is to attract at least 75% of BOI-projects to choose regional sites.

Additional incentives are also given to projects locating in declared less developed areas (LDAs) which consist of 19 provinces. For example, a 6-year tax holiday is given regardless of status (pioneer or nonpioneer) or type of project (new or expansion).



## **Energizing the DTI Bureaucracy**

The bottom line results of trade and industry have come about because there is a DTI team of professionally trained and dedicated Filipinos with the skills and the will to serve. We set high standards of service for ourselves and have been rewarded with good results.

The recruitment, selection and promotion programs of the department are anchored on a platform of excellence which recognizes and rewards only the best. This has to be so because we espouse the culture of global competitiveness and people empowerment which therefore we have to possess ourselves. We cannot preach what we do not practice.

This culture of excellence is now translated into speedy services to various DTI clientele and made available in key strategic sites.

- Computerized business name registration in the National Capital Region (NCR) makes it possible to complete a transaction in 15 minutes or less from the time complete and correct documents are submitted at a service counter.
- One-Stop Investment Action Centers are now ready to serve investors not only in Manila but also in Davao, Iloilo, Cebu, Cagayan de Oro, among others. Processing of investment applications is now down to 15 days from the previous 20.
- To address bottlenecks in the export process, the One-Stop Export Documentation Center (OSEDs) in Manila processed 244,487 documents involving an export value of \$3 billion. Facilitative services were provided to 1,572 exporters through the Export Assistance Network (EXPONET). In the 1992-1994

## Department of Trade and Industry



period, the one-stop export service centers also found in Baguio, Cebu, Iloilo, Davao, Cagayan de Oro and SBMA facilitated more than 700,000 export papers valued at \$8 billion. Moreover, EXPONET assisted some 9,790 exporters.

- Export paper work has been simplified and computerized. It now takes only nine hours to process textile export clearances from the previous 24 hours. Export licenses and certificates of origin are done in 12 hours from 72 hours.
- There are now 16 regional offices and 79 provincial offices ready to service SMEs and micro-business, NGOs and the consumers in the countryside.
- Consumer Welfare Desks located inside key retail outlets nationwide speed up resolution of consumer complaints.

We continue to review and systematize our procedures in the belief that there is always room for improvement.





## Looking at the Future

### Investment Targets

The 1996 target for BOI investments is placed at P380 billion, excluding those of other investment agencies. Assuming the upward trend is maintained, BOI should be able to register P400 billion worth of investments in 1997 while other promotion agencies pull in another P150 billion. At least 75% of these new investments are expected to choose countryside locations.

The main focus of BOI in the next two years will be:

- Employment generation
- SME development
- Countryside growth.

This will be supported by the 7 GOALS AND 11 APPROACHES program for 1996 which has the following elements:

- Institutionalized joint private sector and government partnership for industrial development
- Strengthened National Investment Promotion Units
- Expanded Backward Linkage Program and Center Satellite Project
- Institutionalized BOI network in the countryside with local government units
- Overseas investment missions in tandem with countryside investment clinics
- A National Geographic Information System linked with the Internet

## 1995 Annual Report

- Intensified investment promotion and protection agreements with other countries
- An active investment advocacy campaign, using tri-media and other channels.

### **Export Targets Raised**

The Philippine Export Development Plan (PEDP) had set targets for export at 15% annual growth for three years from 1993 to 1995 and 19% from 1996 to 1998. These have since been revised as performance in the last four years have exceeded targets. Exports are now projected to grow at an annual average of 25% to reach a level of \$50 billion by 2000.

While historical growth of exports over the 1988-1992 period was a dismal 2.5%, it is now clear that a quantum level of change has been reached. In 1994 growth was at 18% and last year a resounding 28.9%. This is an outstanding coup for the export industry but it *should not make anyone slacken but instead run double time* to keep pace with the pack of Asian NICs who even now are far ahead than the Philippines. We are determined not only to play catch-up but KEEP UP. We are also increasing the local value-added of the top exports

### **The toughest tasks are still ahead**

achieving the higher export targets, expanding market presence in world markets and competing with the best. The key word is still COMPETITIVENESS. Focus would continue to be on capacity improvement, industry competitiveness, diversification and productivity. There is need to convince businessmen to GO EXPORT.

In the effort to raise our competitive abilities, our regional and



## Department of Trade and Industry

global alliances should prove handy. Trade liberalization as called for under the Uruguay Agreement of the World Trade Organization, and our initiatives under AFTA carry risks but also open up opportunities. In aligning ourselves with the rest of ASEAN, we combine our strengths to have a louder voice in the world trading arena while enlarging our markets amongst ourselves.

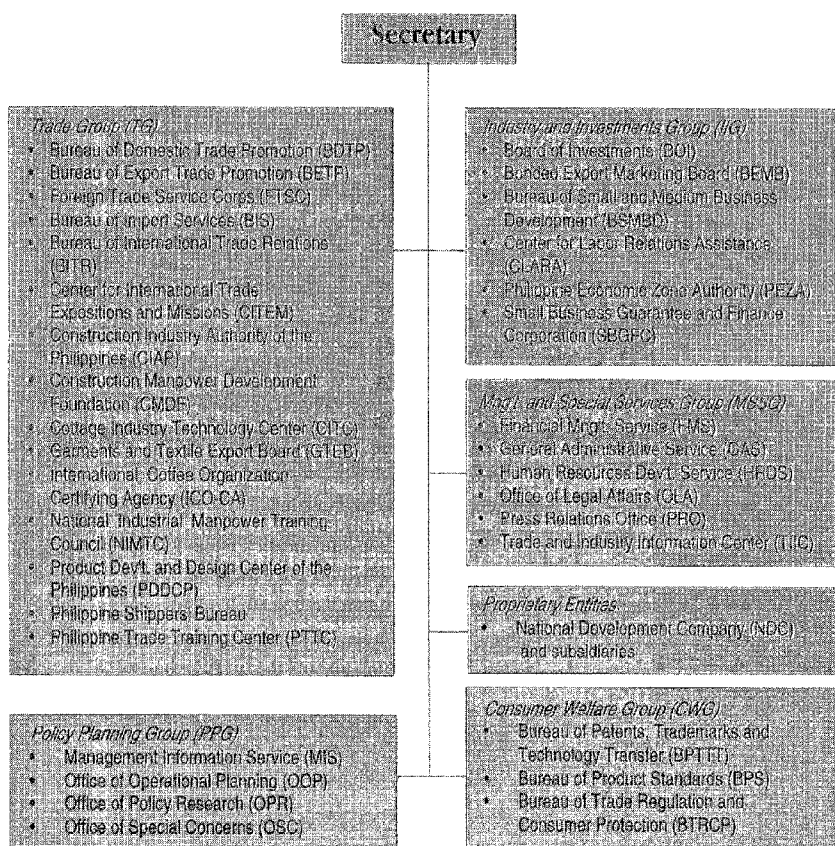
Organizational vibrancy within BOI and all other DTI institutions will also be a priority. Upgrading staff skills are absolute musts in the aim of delivering high service standards to DTI clientele. It goes without saying that internal operating systems, from planning to field execution have to be in sync.

On the whole, the country's trade and investment targets that are so closely bound to our goals of poverty alleviation and improved quality of life, call for a committed and nonpartisan leadership mindset, not only from the Presidency and the Cabinet but at every level of Filipino life. We cannot compete unless every Filipino agrees to do his part. Parents have to instill values of family life and good citizenship which underpin the strength of our society. Schools are needed to help prepare our children mentally, physically and socially for productivity at all levels of endeavor. The church have to shepherd the concerns of the soul so that they translate into love and concern for one another that will still unrest. The public bureaucracy to deliver honest, efficient, and competent service.

In the fight to preserve our democracy and gain economic freedom, we need highly qualified top leadership - but we also need vital dispersed leadership because we must demand high and humane performance at every level of our society and our everyday life.

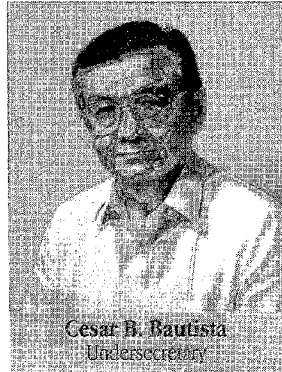
To this task of leadership and service, DTI will remain committed.

# Organization Chart





## DTI Executive Committee



Cesar B. Bautista  
Undersecretary



Rizalino S. Navarro  
Secretary



Melito S. Salazar, Jr.  
Undersecretary



Ernesto M. Ordoñez  
Undersecretary



Edsel T. Custodio  
Assistant Secretary



Arthur N. Aguilar  
NDC General Manager

## Heads of Bureaus/Agencies

### Industry and Investments Group

Melito S. Salazar, Jr.  
Vice Chairman/Managing Head  
Board of Investments

Eloisa A. Lim  
Caretaker  
Bonded Export Marketing Board

Lilia B. De Lima  
Chairman and Director General  
Philippine Economic Zone Authority

Ma. Fina Yonzon  
Officer-in-Charge  
Bureau of Small and Medium Business Dev.

Virgilio Fulgencio  
Caretaker  
Center for Labor Relations Assistance

Dr. Paterno V. Vitoria  
Chairman and Chief Executive Officer  
Small Business Guarantee and Finance Corp.

### Trade Group

Zenaída Cuison Maglaya  
Director  
Bureau of Domestic Trade Promotion

Luis M. Berrei  
Director  
Bureau of Export Trade Promotion

Simeon L. Hernandez  
Coordinating Officer  
Foreign Trade Service Corps

Alexander B. Arcilla  
Caretaker  
Bureau of Import Services

Edna Espos  
Director  
Bureau of International Trade Relations

Araceli Maria Pinto-Mansor  
Executive Director  
Center for International Trade Expositions  
and Missions

Alicia A. Tiongson  
Executive Director  
Construction Industry Authority of the Phil.

Emeline R. Navera  
Executive Director  
Cottage Industry Technology Center

Escolastica B. Segovia  
Executive Director  
Garments and Textile Export Board

Antonio R. Reyes  
Executive Director  
Int'l. Coffee Org.-Certifying Agency

Norma L. Roque  
Executive  
National Ind'l. Manpower Training Council

Minerva P. Franco  
Executive Director  
Product Dev't. and Design Center of the Phil.

Jose Luis Yulo, Jr.  
President  
Philippine International Trading Corporation

Antonio R. Reyes  
Officer-in-Charge  
Philippine Shippers' Bureau

Ma. Angelina V. Angeles  
Executive Director  
Philippine Trade Training Center

### Regional Directors

Armando P. Galimba  
Cortillera Administrative Region

Florante O. Leal  
Region 1

Jose V. Hipolito  
Region 2

Oliver B. Butalid  
Region 3

## Department of Trade and Industry



Richard Albert I. Osmond  
Region 4

Monina Lily A. Claveria  
Region 5

Dominic P. Abad  
Region 6

Alberto T. Gumarao  
Region 7

Cynthia Nierras  
Region 8

Nazrullah B. Manzur  
Region 9

Nimfa A. Albania  
Region 10

Merly Cruz  
Region 11

Ibrahim K. Guimadel  
Region 12

Fatima Irene Tillah Rasul  
Regional Secretary  
Autonomous Region for Muslim Mindanao

Zenaida Cuison-Maglaya  
Caretaker  
National Capital Region

### **Consumer Welfare Group**

Emma C. Francisco  
Director  
Bureau of Patents Trademarks and  
Technology Transfer

Jesus Motoomull  
Caretaker  
Bureau of Product Standards

Jesus Motoomull  
Director  
Bureau of Trade Regulation and Consumer  
Protection

### **Planning Service Group**

Alfredo M. Torres  
Caretaker  
Management Information Service

Ma. Aurora A. Dela Rea  
Caretaker  
Office of Operational Planning

Joseph H. Francia  
Director  
Office of Policy Research

Marita Jimenez  
Director  
Office of Special Concerns

### **Management and Special Services Group**

Lourdes R. So  
Director  
Financial Management Service

Amando T. Alvis  
Director  
General Administrative Service

Ma. Lourdes Baua  
Director  
Human Resources Development Service

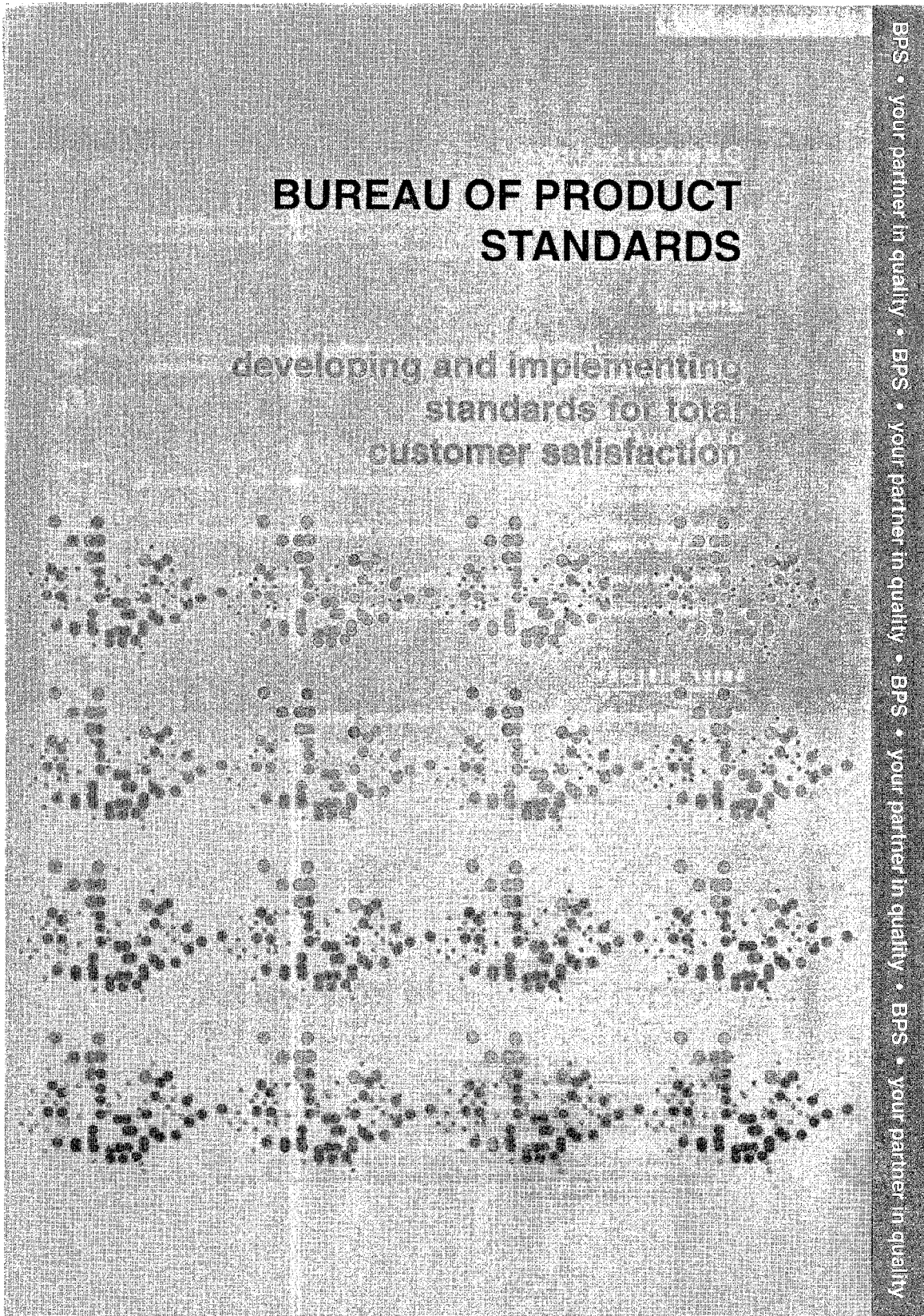
Virgilio A. Sevandal  
Director  
Office of Legal Affairs

Romeo J. Pajarillo  
Director  
Press Relations Office

Minerva R. Fajardo  
Director  
Trade and Industry Information Center

Photos: Ayala Corporation/Kuok Properties/PNOC/ICTSI/CitiBank/Shell Philippines

② Bureau of Product Standards パンフレット



## ORGANIZATION

The Bureau of Product Standards (BPS) is the Philippines' National Standards Body. Established by Republic Act No. 4109 and Executive Order No. 133, the BPS is a governmental agency under the Department of Trade and Industry (DTI).

## MISSION

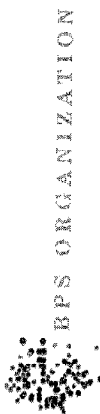
The Bureau of Product Standards is mandated to develop, implement, and coordinate standardization activities in the Philippines. It is primarily involved in standards development and standards implementation/promotion

## OBJECTIVES OF THE BPS

- To upgrade the quality of Philippine products to enable them to qualify and be competitive in both domestic and foreign markets;
- To protect and safeguard the interest of consumers and the public, especially in matters of health and safety;
- To promote concern for the environment and efficient use of natural resources; and
- To instill standards and quality consciousness among the Filipino people.

## BRIEF HISTORY

- 1916 - The Committee on Standardization of Supplies was created.
- 03 October 1938 - The Committee on Standardization of Supplies is integrated into the Division of Purchase under the Department of Finance.
- 1938 - 1964 - Specialized government agencies such as the Bureau of Forestry and the Philippine Virginia Tobacco Administration were involved with the development and implementation of standards. To centralize standardization activities in the country a Division of Standards was created by virtue of Executive Order No. 98, under the Bureau of Commerce.
- 20 June 1964 - The Division of Standards became the Bureau of Standards (BS) under the Department of Commerce and Industry through Republic Act No. 4109. BS became the central body for all standardization activities in the Philippines.
- 1968 - The Bureau of Product Standards became a full member of the International Organization for Standardization (ISO).
- 1987 - Executive Order No. 133 strengthened the Bureau's standards implementation authority, and the name Bureau of Product Standards was adopted.
- 1992 - The Consumer Act of the Philippines (Republic Act No. 7394) identified three government agencies responsible for standards development and implementation: Department of Health (drugs, cosmetics, devices, and substances); Department of Agriculture (agricultural products); and Department of Trade and Industry (other consumer products not covered by the other two agencies).
- 1996 - The Bureau of Product Standards became a full member of the Asia-Pacific Laboratory Accreditation Cooperation (APLAC) and the International Laboratory Accreditation Cooperation (ILAC)





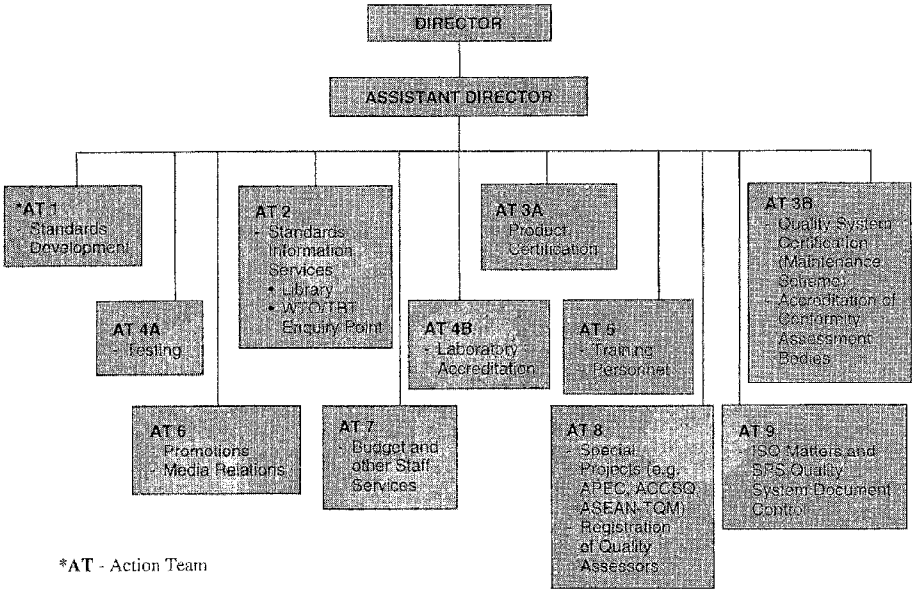
**Mission Statement**

We the BPS family, in partnership with other organizations, are committed:

- to raise the quality and global competitiveness of Philippine products;
- to foster consumer and environmental protection;
- to instill standards and quality consciousness among the Filipino people; and
- to serve our clients with the quality of service that is sustainable with our resources.

Through our commitments we aim to contribute to national economic and social development through standardization and to attain the goals of Philippines 2000.

**Organizational structure showing functional groups**



\*AT - Action Team

For more information on the BPS, get in touch with

**BUREAU OF PRODUCT STANDARDS**  
Department of Trade and Industry

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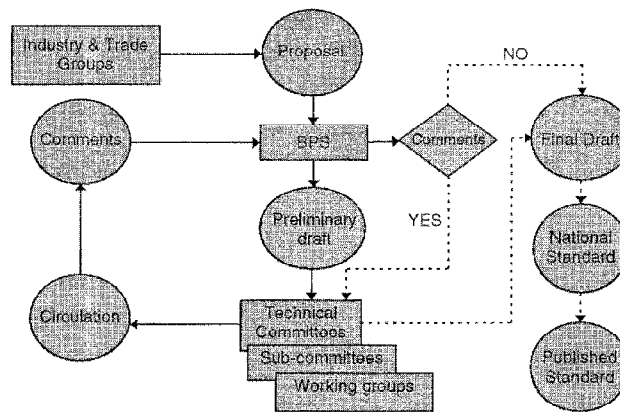


## ACTIVITIES

### STANDARDS DEVELOPMENT

The Bureau of Product Standards is the central body in the Philippine authorized to issue national standards. In the same way ISO (International Organization for Standardization) draws-up and maintains international standards, BPS also formulates Philippine National Standards through its technical committees and normally reviews Philippine National Standards every five years. Such reassessment of Philippine standards can be done even before five years if BPS finds reasonable cause such as fast-breaking advances in technology and strong consumer demands.

#### • Standards formulation flow chart



### PRODUCT CERTIFICATION AND TESTING

#### • Philippine Standards Certification Scheme

The BPS operates a product certification scheme under which a manufacturer obtains a license to use the Philippine Standard (PS) Quality and Safety Marks for its capability to consistently manufacture products in accordance with a specific Philippine National Standard (PNS) or an internationally accepted foreign standard.

Conformity to standards is determined on the basis of satisfactory results of the assessment of the manufacturer's production and quality assurance processes and products.



### • Import Commodity Clearance

For imported products, the BPS runs the Import Commodity Clearance (ICC) quality certification scheme. Under the scheme, ICCs are issued to importers whose shipments have been found to conform to the requirements of the relevant Philippine National Standards or acceptable international or foreign standards.

### • Product testing

The BPS also offers its clients third-party testing of products to verify conformity to buyer-seller specifications. The BPS Testing Center performs electrical, chemical, and mechanical testing of products primarily to support the PS and ICC certification mark systems and the research requirements of standards development.

## LABORATORY ACCREDITATION

The BPS Laboratory Accreditation Scheme covers the accreditation of testing and/or calibration laboratories. Under the scheme, BPS assesses laboratories for their conformance to an international guideline that sets out the basic requirements for a laboratory's quality management system (i.e. ISO/IEC Guide 25).

The ISO/IEC (International Organization for Standardization/International Electrotechnical Commission) Guide 25, which was adopted by BPS as Philippine National Standard (PNS) 1600, is used by BPS in assessing applicants for laboratory accreditation.

## ACCREDITATION OF CONFORMITY ASSESSMENT BODIES

The BPS accreditation scheme for conformity assessment bodies similarly looks into the compliance of quality system certification and inspection bodies to international standards related to the conduct of third-party assessment and quality system certification and/or performance of factory assessment on behalf of the BPS PS certification mark scheme.

Applicants for accreditation are assessed by BPS using PNS 1603:1996/ISO/IEC Guide 62: General Requirements for bodies operating assessment and certification/registration of quality system.

## REGISTRATION OF QUALITY ASSESSORS

The BPS national registration scheme for quality assessors lists individuals whose performance and experience as quality assessors have been evaluated and have been found to qualify with an established set of requirements. The scheme makes available to industry a pool of qualified assessors from which assessment services for quality certification to ISO 9000, product certification, and laboratory accreditation can be availed.



## INFORMATION DISSEMINATION AND TRAINING

The BPS implements an information program to help promote standardization. It makes available to the public the following resources.

### • Technical Help to Exporters

Philippine exporters are given advise on foreign technical requirements which they must meet so that their products can be acceptable to foreign markets. Laws, standards, technical regulations, and approval schemes are made available to interested parties.

### • Standards Data Centre Services

To cater to the information needs of researchers, the library maintains a full set of Philippine standards and selected international and foreign standards. It contains catalogues, journals, and other technical publications.

### • Sales

The Sales Unit of the Standards Data Centre receives inquiries and fills orders for copies of local, foreign, and international standards, catalogues, standards related publications, and metrication materials.

The BPS acts as the sole distributor in the Philippines of standards published by the International Organization for Standardization (ISO), ISO member bodies, and other leading standardizing bodies.

### • Publications

The "BPS Directions," a quarterly newsletter, the List of PS licensees and Importers Issued the Import Commodity Clearance, ISO 9000 Certified Companies, and the Philippine National Standards Catalogue are regularly published by the Bureau to inform the public of its activities and services.

Other promotional materials on standards and standards related information are also published by the Bureau.

### • Seminars

The BPS conducts seminars nationwide to promote better understanding and application by industries of quality assurance and management system and product standards as well as quality control methods. In these seminars, the BPS also presents its basic policies, programs, and services to the private sector. Informative printed and audio-visual materials are shown and/or distributed to participants to complement training activities.

#### The BPS provides technical training on the following subjects:

- Standards development
- Quality control
- Quality system certification (PNS 1000/ISO 9000)
- Product certification
- International system of units (SI) or modern system of measurement
- Laboratory management (PNS 1600/ISO/IEC Guide 25)
- Environmental management system (PNS 1700/ISO 14000)

## INTERNATIONAL STANDARDS WORK

Recognizing the benefits of international standards to Philippine trade and industrial development, the BPS is intensifying its participation in international standardization activities.

### • ISO Participation

The BPS is an active member of the International Organization for Standardization (ISO). Based in Geneva, the ISO is at present composed of national standards bodies from over 100 countries.

As an ISO-member body, the BPS participates in the development of international standards. The BPS has obtained, on behalf of the Philippines, participating membership in 47 ISO technical committees (ISO/TC):

- 1 - Screw Threads
- 2 - Fasteners
- 3 - Limits and Fits
- 4 - Rolling Bearings
- 6 - Paper, Board and Pulps
- 11 - Boilers and Pressure Vessels
- 17 - Steel
- 22 - Road Vehicles
- 23 - Tractors and Machinery for Agriculture and Forestry
- 33 - Refractories
- 34 - Agricultural and Food Products
- 35 - Paints and Varnishes
- 44 - Welding and Allied Processes
- 45 - Rubber and Rubber Products
- 55 - Sawn Timber and Sawlogs
- 58 - Gas Cylinders
- 59 - Building Construction
- 61 - Plastics
- 63 - Glass Containers
- 68 - Banking and Related Technical Services
- 74 - Cement and Lime
- 89 - Wood-based Panels
- 91 - Surface Active Agents
- 94 - Personal Safety Protective Clothing and Equipment
- 122 - Packaging
- 126 - Tobacco and Tobacco Products
- 135/ - Non-destructive Testing
- SC7
- 136 - Furniture
- 137 - Sizing System, Designation and Marking for Boots and Shoes
- 138 - Plastic Pipes, Fitting & Valves for the Transport of Fluids
- 146 - Air Quality
- 147 - Water Quality
- 155/
- SC 1 & 5 - Nickel Alloys
- 156 - Corrosion of Metals & Alloys
- 159 - Ergonomics
- 162 - Doors and Windows
- 164 - Mechanic Testing and Metals



## BPS ACTIVITIES

- 166 - Ceramic Ware, Glassware and Glass Ceramic Ware in Contact with Food
- 176 - Quality Management and Quality Assurance
- 180 - Solar Energy
- 181 - Safety of Toys
- 183 - Copper, Lead, Zinc Ores and Concentrates
- 189 - Ceramic Tile
- 198 - Sterilization of Health Care Products
- 199 - Safety of Machinery
- 200 - Solid Wastes
- 207 - Environmental Management

The BPS also represents the country in ISO General Assembly meetings, where substantive policy decisions governing international undertakings are made. It also participates in the ISO's Development Committee (DEVCO), Conformity Assessment Committee (CASCO), and Consumer Policy Committee (COPOLCO). It has hosted in several training seminars under the auspices of ISO as well as ISO TC meetings.

### • Participation in other International Bodies

The BPS, together with 43 other countries have formed a group which will serve as an international forum for laboratory accreditation bodies: the International Laboratory Accreditation Cooperation (ILAC).

### • Regional Participation

In regional standardization, the BPS has been actively participating as member in the activities of the Pacific Area Standards Congress (PASC), a forum which strengthens and supports the international standardization program of ISO and the International Electrotechnical Commission (IEC).

The Bureau, through the Laboratory Accreditation Scheme it implements, is also a full member of the Asia Pacific Laboratory Accreditation Cooperation (APLAC).

Important regional standardization projects have been pursued by BPS with the national standards bodies of other ASEAN countries, namely Brunei Darussalam, Indonesia, Malaysia, Singapore, Thailand, and Vietnam. The Philippines, through the BPS commenced in 1993 the implementation of the ASEAN standards harmonization program under the ASEAN Consultative Committee for Standards and Quality (ACCSQ). ASEAN member countries undertake measures for the harmonization of standards, laboratory accreditation and the reciprocal recognition of test results, and certification of products and quality systems to remove technical barriers to intra-ASEAN trade.

Another regional standardization project which BPS participates in is the Asia Pacific Economic Cooperation (APEC) Sub-Committee on Standards and Conformance (SCSC).

The APEC-SCSC members have agreed to work toward the achievement of the following goals to reduce costs, facilitate trade, and improve efficiency of administrative processes related to trade in the region:

- Ensure the transparency of the standards and conformity assessment of APEC economies.
- Align APEC economies mandatory and voluntary standards with international standards.
- Establish mutual recognition among APEC economies of conformity assessment in the regulated and voluntary sectors, and
- Promote cooperation for technical infrastructure development to facilitate broad participation in mutual recognition arrangements in both the regulated and voluntary sectors.



- **WTO/TBT**

To contribute to the expansion and diversification of Philippine exports, the BPS functions as the WTO/TBT (World Trade Organization/Technical Barriers to Trade) Inquiry Point in connection with the country's implementation of obligations in accordance to the provision of the "Standards Code." The Philippines acceded to the code in 1981 under the then General Agreement on Tariffs and Trade (GATT). In January 1996, the Philippines implemented the results of the Uruguay Round of Multilateral Trade Negotiation, which included a revision of the Agreement on Technical Barriers to Trade and the replacement of GATT with another institution known as the World Trade Organization as initiated by the leading signatories of GATT. Through dialogues and exchange of information on technical rules and regulations, standards and conformity assessment procedures, signatory countries seek transparency in their international trading transactions. The Code provides a mechanism that helps prevent the creation of technical barriers to trade.

For more information on the BPS, get in touch with

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**BPS**  
your  
partner in  
quality

BPS/ACT6-01/01

## STANDARDIZATION AND ITS BENEFITS

### WHY DO WE NEED STANDARDS ?

Have you ever wondered why every time you use an automated teller machine (ATM) card to deposit your money, or a credit card to pay for your purchase, or a phone card to call someone, they all seem to fit any machine that accepts these cards? Or when you have to take pictures of loved ones, scenes or views, or events, have you asked yourself why any 35 mm roll of film easily fits into your camera (regardless of brand) for still pictures?

These credit cards, phone cards, and "smart" cards that have become commonplace, fitting any machine, follow specifications of relevant International Standard. Keeping to the standard - which defines such features as an optimal thickness (0.76 mm), or that card corners shall be rounded with a radius of 3.18 mm, or that the card shall be made of PVC (polyvinyl chloride) and/or PVCA (polyvinyl chloride acetate) - means that the cards can be used worldwide. For photographic films, ISO 1007 specifies dimensions, configurations, and tests applicable to both 35 mm film and film magazine.

Standards thus contribute to making life simpler and to increasing the reliability and effectiveness of the goods and services we utilize.

### WHAT IS A STANDARD ?

Standards are documented agreements containing technical specifications and other precise criteria to be used consistently as rules, guidelines, or definitions of characteristics, to ensure that materials, products, processes, and services, will meet the needs of the customers.

There are various levels of standards:

- **International Standard** - a standard that is published by an international standardizing/ standards organization ( whose membership is open to the relevant national bodies of other countries) and made available to the public, such as ISO 1007 : 1979 a photography standard on the specifications for 35 mm size film and film magazines, is an example of an international standard. ISO 1007 was developed and published by the International Organization for Standardization (ISO), a standard body composed of over 100 member-countries.
- **Regional Standard** - a standard that is published by a regional standardizing/standards organization (whose membership is open to the relevant national body from each country within one geographical, political or economic area only ) and made available to the public, such as EN (European Norms) 71-1 : 1988 Safety of Toys - Part 1 : Mechanical and Physical Properties. EN 71-1 was published by the European Committee for Standardization (CEN) representing the current 18 member-countries of the European Community (EC).
- **National Standard** - a standard that is published by a national standards body (recognized at the national level that is eligible to be the national member of the corresponding international and regional standards organizations) and made available to the public, such as PNS (Philippine National Standard) 1224 : 1994 Crayons Specification. PNS 1224 was developed and published by the Bureau of Product Standards, the Philippine's National Standards Body.
- **Provincial Standard** - a standard that is published at the level of a territorial division of country and made available to the public.
- **Company Standard** - a standard that is published by a firm and used within the confines of their organization.

STANDARDIZATION





## WHAT IS STANDARDIZATION ?

It refers to the process of formulating, promoting, and applying standards to a specific activity. The process of establishing a common size and performance characteristics of an ATM card or a 35 mm roll of film are examples of standardization.

Industry-wide standardization is a condition existing within a particular industrial sector when the large majority of products or services observe the same standards. Also referred to as international standardization, it results from consensus agreements reached between all economic players in that industrial sector - suppliers, users, and often governments. They agree on specifications and criteria to be applied consistently in the choice and classification of materials, the manufacture of products, and the provision of services. The aim is to facilitate trade, exchange, and technology transfer through:

- enhanced product quality and reliability at a reasonable price,
- improved health, safety and environmental protection, and reduction of waste,
- greater compatibility and interoperability of goods and services,
- simplification for improved usability,
- reduction in the number of models, and thus reduction in costs,
- increased distribution efficiency and ease of maintenance.

International standardization is now well-established for very many technologies in such different fields as information processing and communications, textiles, packaging, distribution of goods, energy production and utilization, shipbuilding, and banking and financial services. It will continue to grow in importance for all sectors of industrial activity in the future. International standardization is needed for these main reasons:

- **Worldwide progress in trade liberalization**

Today's free-market nations strongly encourage various sources of supply and provide opportunities for expanding markets. On the technology side, fair competition needs to be based on identifiable, clearly defined common references - or standards - that are recognized from one country to the next, and from one region to the other. An industry-wide standard, internationally recognized, developed by consensus among trading partners, serves as the language of trade.

- **Interpenetration of sectors**

No industry in today's world can truly claim to be completely independent of components, products, rules of application, etc., that have been developed in other sectors. Bolts are used in aviation and for agricultural machinery; welding plays a role in mechanical and nuclear engineering, and electronic data processing has reached all industries. In addition, environmentally friendly products and processes, and recyclable or biodegradable packaging are among widespread concerns.

- **Worldwide communications systems**

The computer industry offers a good example of technology that needs to be globally standardized quickly and progressively. The Open Systems Interconnection is the best-known Series of International Standards in this area. Full compatibility among open systems fosters healthy competition among producers and offers real options to users since it is a powerful catalyst for innovation, improved productivity, and cost-cutting.



- **Global standards needs for emerging technologies**

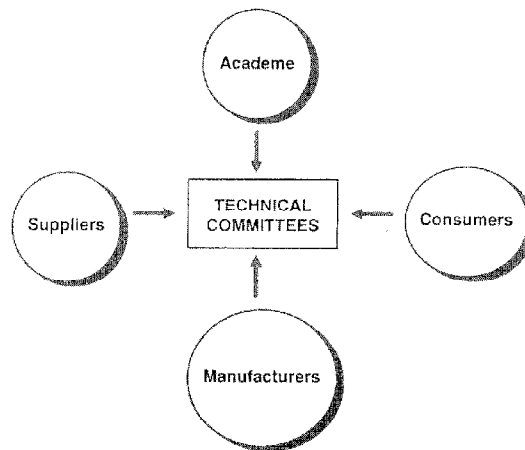
Standardization programs in completely new fields are now being developed. Such fields include advanced materials, the environment, life sciences, urbanization, and construction. In the very early stages of new technology development, applications can be imagined but functional prototypes do not exist. Here, the need for standardization is in defining terminology and accumulating databases of quantitative information.

- **Developing countries**

Development agencies are increasingly recognizing that a standardization infrastructure is a basic condition for the success of economic policies aimed at achieving sustainable development. Creating such an infrastructure in developing countries is essential for improving productivity, market competitiveness, and export capability.

### HOW ARE STANDARDS PREPARED ?

Standards are developed by Technical Committees (TC). The TCs have representatives from all sectors of society affected by the standards as its members : suppliers, manufacturers, customers, members of the academe, among others. It is essential that standards reflect sound and balanced needs of the various sectors of society for them to make substantive contributions to the country's overall development program.



Standards are developed according to the principles of consensus, industry-wide, and voluntary.

- **Consensus** - The views of all interests are considered : manufacturers, vendors and users, consumer groups, testing laboratories, governments, engineering professions and research organizations.
- **Industry-wide** - Global solutions are agreed upon to satisfy industries and customers worldwide.
- **Voluntary** - International standardization is market-driven and therefore based on voluntary involvement of all interests in the market-place.

There are three main phases in the ISO standards development process.

1. The need for a standard is usually expressed by an industry sector which communicates this need to a national standards body. Once the need for a Standard has been recognized and formally agreed, the first phase involves definition of the technical scope of the future standard. This phase is may be carried out in working groups.
2. Once agreement has been reached on which technical aspects are to be covered in the standard, a second phase is entered during which affected sectors negotiate the detailed specifications within the Standard. This is the consensus-building phase.
3. The final phase comprises the formal approval of the resulting draft Standard ( the acceptance criteria stipulate approval by two-thirds of the members that have participated actively in the standards development process and approval by 75% of all members that vote) following which the agreed text is published as an International, Regional, or National Standard.

#### HOW ARE STANDARDS REVIEWED ?

Existing standards require periodic revision and update to keep them in step with the latest developments. Several factors combine to render a standard out of date: technological evolution, new methods and materials, new quality and safety requirements. To take account of these factors, every standard shall be reviewed at least every five years by the technical committee or sub-committee responsible for it. On occasion, it is necessary to revise a standard earlier.

#### USES AND BENEFITS OF STANDARDS

- **Standards are means of communicating ideas and technical data.**

A primary function of standards is to provide a means of communication. Standards unify understanding of technologies, symbols, marks, labels, codes.

- **Standards promote overall economy in human efforts, materials, and other resources in the production and exchange of goods.**

The use of standards results in a more economic use of human effort, material, time, and other resources since work planning, production, and management procedures are simplified and better controlled. Standards minimize unnecessary variety of processes, procedures, machines, and supplies used. This results in a more efficient usage of resources. Furthermore, with less differences in trading practices in the domestic and international scenes more lucrative commercial projects and businesses would be viable.

- **Standards define fitness for use.**

Specifications on property and performance characteristics are indicated by standards to dispense quality to a product representing a well-balanced consensus between the requirements of end users and the capability of producers; standards contribute to a wider acceptance and competitiveness of a product in its market.

Methods of inspection, sampling and testing are also proscribed to check if the product is manufactured according to standard specifications.



- **Standards offer simplification.**

If you are a photographer, any 35 mm film will fit into any 35 mm camera wherever you buy them. An 8 mm video cassette, wherever manufactured, has a standard size and will fit in any 8 mm video camcorder. Indeed, the complexities of life with the presence of many manufactured goods and components in different sizes, shapes, and performance, are simplified by standards.

And because standards are clear and easy to understand, the advantage of interchangeability of component parts, assemblies, or complete products, make possible efficient mass production processes. Consequently, wastage of resources is avoided, therefore, raising productivity.

- **Standards protect consumers and community interests in general.**

Standards are prepared for the advantage of the public. They are either regulations to impart information and to promote public health and safety.

A prime example of this is the use of standard labelling of goods for health reasons. Informative labelling of goods helps consumers recognize quality goods. It also helps them make wiser decisions in their purchases. Examples of regulatory standards, which promote safety and protection of life, include fire regulations to be observed in the construction of buildings, and in the installation of electrical wiring. As for critical products, such as processed food, fire fighting equipment, electrical products, and construction materials, standards ensure a high degree of product reliability.

- **Standards play an essential role in increasing world trade.**

The rapid advance in technology, which is taking place all over the world in conjunction with the growing economic aspirations of countries, have created a demand for new and updated standards for international use. Due to international standards, better communications stimulate a vast increase in the volume of goods traded between one country and another.

The presence of internationally harmonized, non-conflicting regulations and standards in different countries helps eliminate technical (non-tariff) barriers to trade among countries.

- **Standards serve as vehicles for the transfer and application of technology from developed to developing countries; and as catalysts for industrial and technological growth.**

Standards operate as a vehicle for the transfer of technology, and with that, any international standards can be adopted as national standards in developing countries after taking into account the needs of their consumers and the capabilities of their industries. A firm basis is provided by standards in making meaningful use of new technology. Such arrangement leads to compatibility of industrial practices among different countries.

## TYPES OF STANDARDS

The International Organization for Standardization (ISO), the specialized international body for standardization, has classified eight(8) types of standards:

- ◆ **Basic Standard**

A standard having a wide range coverage or containing general provisions for a particular field. A basic standard may function as a standard for direct application, or a basis for other standards.



◆ **Terminology Standard**

A standard concerned exclusively with terms usually accompanied by their definitions and sometimes by explanatory notes, illustrations, examples, etc.

◆ **Testing Standard**

A standard concerned exclusively with test methods, sometimes supplemented with other provisions related to testing, such as sampling, use of statistical methods, and sequence of tests.

◆ **Product Standard**

A standard specifying requirements for some or all of the requirements to be met by a product or a group of products in order to ensure fitness for purpose.

◆ **Performance Standard**

A product standard specifying requirements for one or more performance characteristics.

◆ **Descriptive Standard**

A product standard specifying requirements for one or more descriptive characteristics.

◆ **Variety Control Standard**

A product standard aimed at variety control, generally containing a series of selected values or attributes of a product.

◆ **Service Standard**

A standard specifying some or all requirements to be met by a service in order to ensure its fitness for purpose.

◆ **Safety Standard**

A standard aimed at the safety of people and goods.

◆ **Interface Standard**

A standard specifying requirements concerned with the compatibility of products or systems at their points of communication.

◆ **Standard on Supplier's Data**

A standard containing a list of characteristics for which values or other data are to be stated by the supplier.

For more information on the BPS, get in touch with

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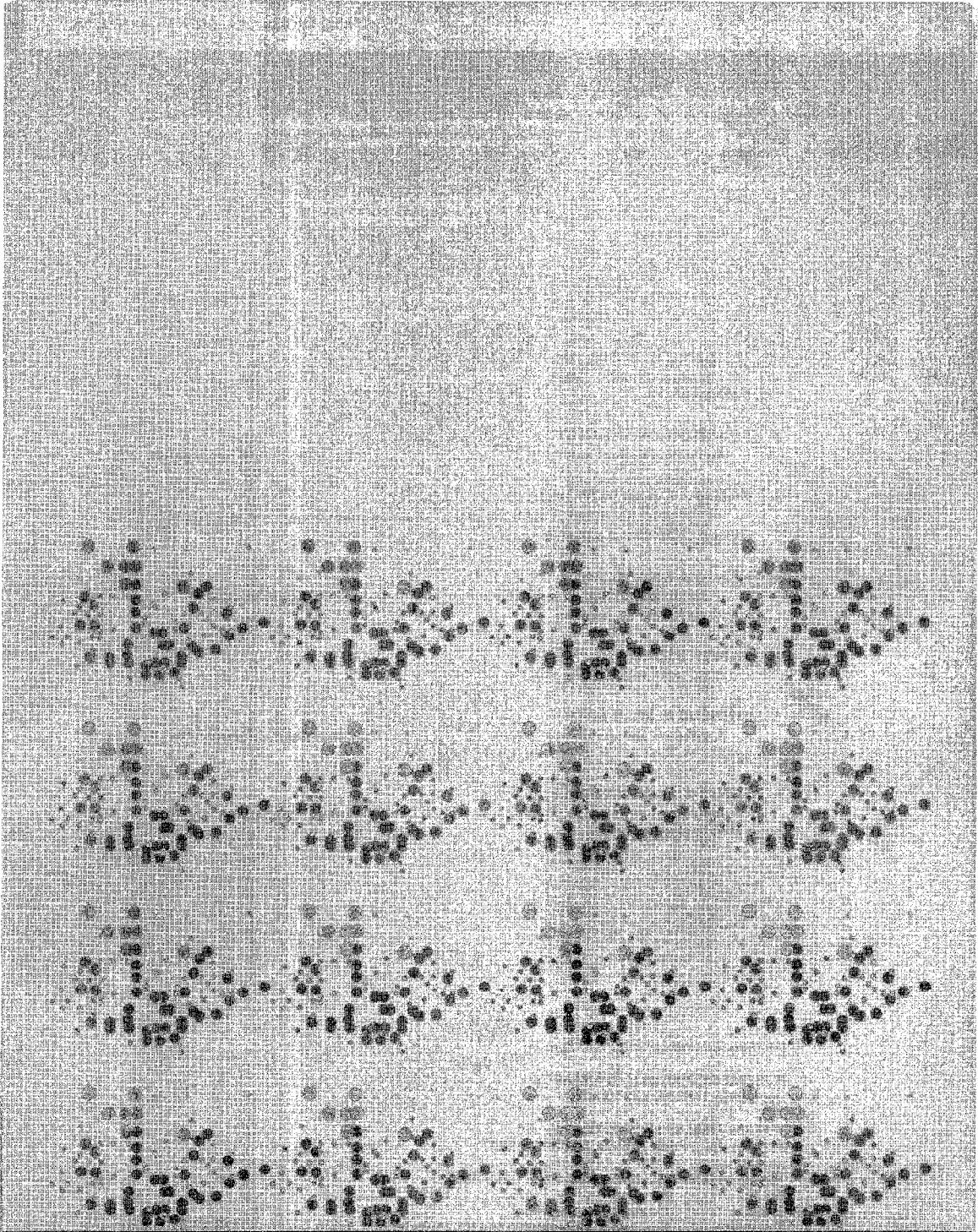
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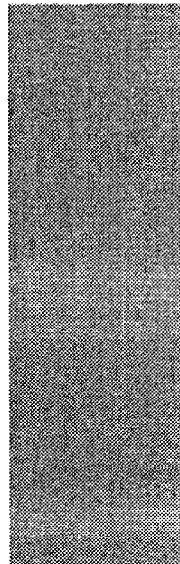
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# *Organization and Activities*

**BPS**



*your partner  
in quality*

## ORGANIZATION

### Organization Background

The Bureau of Product Standards (BPS) is the Philippines' National Standards Body. Established by Republic Act No. 4109 and Executive Order No. 133, the BPS is a governmental body under the Department of Trade and Industry (DTI).

### Objectives of the BPS

Mandate of the Bureau of Product Standards – to develop, implement, and coordinate standardization activities in the Philippines.

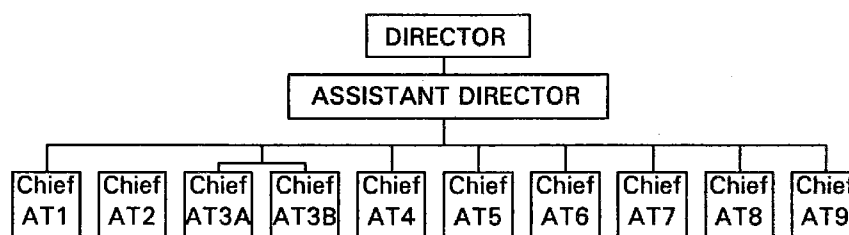
- To upgrade the quality of Philippine products to enable them to qualify and be competitive in both domestic and foreign markets;
- To protect and safeguard the interest of consumers and the public, especially in matters of health and safety;
- To promote and improve efficiency in manufacturing for better product quality and higher productivity; and
- To instill standards and quality consciousness among the Filipino people.

### Functions

To attain its objectives, the BPS focuses its important activities on six major functions:

- Standards development;
- Product certification and testing
- Accreditation of conformity assessment bodies
- Laboratory accreditation
- Registration of quality assessors
- Technical information and promotions

### Organizational Chart Showing Functional Modules



- AT 1 Standards Development
- AT 2 Information Services
- AT 3A Product Certification and Accreditation of Inspection Bodies
- AT 3B Accreditation of Quality System Certification Bodies, Quality Assessors  
Registration and Maintenance of ISO 9000 Certified Companies\*
- AT 4 Testing and Laboratory Accreditation
- AT 5 Training and Personnel

\* until 1998



- AT 6 Promotion, Production Services and Media Relations
- AT 7 Budget, General Services and Consumer Affairs
- AT 8 Special Projects such as ASEAN-EC ISQAP, ACCSQ, APEC
- AT 9 ISO Matters and BPS Quality System Documentation

## **FUNCTIONS AND ACTIVITIES**

### ● ***Standards Development***

The technical committee method has been adopted by the BPS in its standard preparation activities.

Patterned after ISO's standards writing directives, the BPS technical committee method involves the following steps:

Step I - The BPS draws a program of work on standardization, taking into account the needs and interests of industry, trade, consumers, academe, professionals, and government. Other factors include: (a) developments in science and technology; (b) new products and materials (c) availability of resources in the country such as technology, processes and materials; (d) public health and safety; and (e) national economic development objectives.

In the preparation of its work program, the BPS welcomes requests or proposals from interested parties to develop a standard for a specific subject or to revise an existing standard. As a matter of policy, the BPS reviews all existing national standards to keep them updated and therefore relevant to the changing needs of users.

Technical committees (TCs) are formed with specific product group assignments; whenever necessary, sub-committees (SCs) and working groups (WGs) are likewise formed to expedite the work of the TCs. So that resultant standards are meaningful and realistic in the light of a dynamic environment, the TCs, SCs, and WGs have representatives of the BPS, manufacturers, consumers, academe, professionals, and other government agencies as members.

Step II - Based on researches that also examine existing international standards and in consultation with sectors concerned, the BPS prepares a draft of a standard. It is submitted to the relevant TC for intensive deliberation. Once consensus on vital issues is attained, a committee draft is issued by the TC.

Step III - The committee draft is forwarded and circulated for a month's duration to all parties or sectors concerned, for comments and suggestions.

Step IV - After due deliberation and incorporation of all the modifications, the draft is finalized by the TC and subsequently published by the BPS as a Philippine National Standard.

Standards development includes the preparation of metrication circulars which prescribe rationalized metric sizes for products. The procedures adopted in preparing

them rely heavily, too, on dialogues with the private sector. Consensus is sought during multisectoral deliberations on the most practical and market-oriented metrication program for individual product groups.

### ● ***Certification***

As the national standards body, BPS promotes quality through product certification. Product certification is an assurance that a product meets the requirements of national or international/foreign standards.

#### ***Philippine Standards (PS) Certification Marking Scheme***

The PS Certification Marking Scheme is a third-party certification wherein a **manufacturer**, after rigid factory and product assessment by BPS, is granted the license to use the PS Quality Mark on its product for its capability to consistently manufacture in accordance with a specific Philippine National Standard (PNS) or an acceptable international or foreign standard.

Conformity to standards is determined on the basis of satisfactory results of an assessment of the manufacturer's production and quality assurance processes and actual products.

This scheme is needed by manufacturers, realizing that certified products have a competitive edge in the market place. It is cost-effective and advantageous to both consumers and manufacturers. A third-party certification scheme is an effective mechanism for consistent monitoring of the quality of a product. When the PS Mark is found on a product, it signifies that this product is expected to function as expected, is safe and reliable to use.

#### ***Import Commodity Clearance***

The Import Commodity Clearance is issued to **importers** of commodities found conforming to Philippine National Standards or acceptable international or foreign standards.

### ● ***Product Testing***

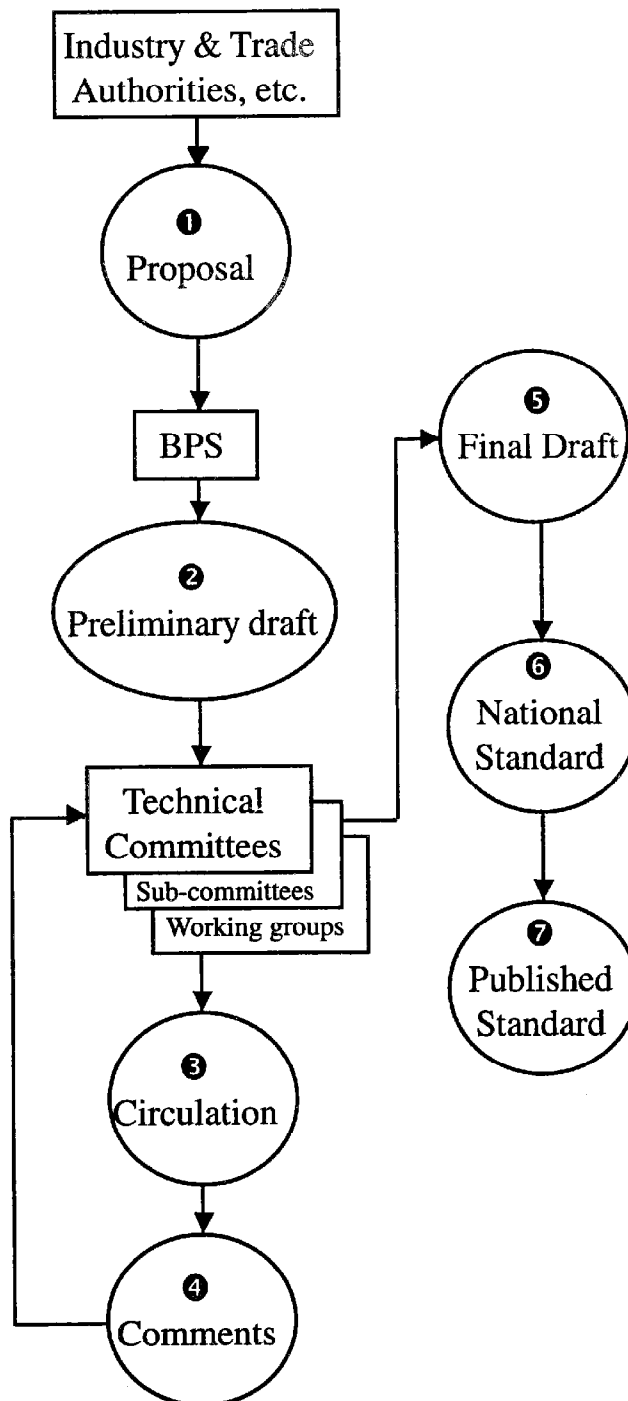
To support the PS and ICC Certification Mark systems and the research requirements of standards development, the BPS maintains a testing laboratory. The BPS Testing Center performs electrical, chemical, and mechanical testing of products. It also offers its clients third-party product testing to verify conformity to buyer-seller specifications.

### ● ***Laboratory Accreditation***

The BPS together with the Industrial Technology Development Institute of the Department of Science and Technology, runs a laboratory accreditation program. Testing institutions, public or private, are accredited for their competence, integrity, and willingness to work closely with BPS in meeting product testing requirements of different sectors.



# *Standards Formulation Flow Chart*



### ● ***Accreditation Scheme for Conformity Assessment Bodies***

The BPS accreditation scheme for conformity assessment bodies is a third-party certification scheme wherein quality system certification and inspection bodies are issued a certificate of accreditation after having been assessed and found competent and reliable in the operation of quality system certification and inspection services according to the criteria set out by BPS. Accredited quality system certification and inspection bodies are subject to surveillance visits by BPS to ensure their consistent conformance with the requirements of the standard and the terms and conditions of their accreditation. Through this scheme, accredited certification and inspection bodies can provide their clients assurance and confidence in their service.

Companies which intend to become certified to ISO 9000 will benefit from this scheme since they will now be able to select from a pool of acceptable quality system certification bodies. Prior to BPS acceptance of a certification body, its certification personnel are qualified to ensure technical expertise, professionalism, and over-all competence.

### ● ***Registration Scheme for Quality Assessors***

Quality assessors are issued a certificate of registration after having been accepted as meeting the requirements of the National Registration Scheme for Quality Assessors (NRSQA). In this registration scheme, quality assessors are evaluated according to their background and experience in the assessment field. This scheme makes available a pool of qualified assessors to BPS and suppliers in circumstances where their services are needed.

### ● ***Information Dissemination and Training***

The BPS carries out an information program to help promote standardization and metrication. For this purpose, the BPS provides the following resources.

#### ***Technical Help to Exporters***

Philippine exporters are given advise on foreign technical requirements which they must meet in order that their products can enter and gain acceptance in foreign markets. Laws, standards, technical regulations, and approval schemes are among the areas dealt with.

#### ***Standards Data Centre Services***

To cater to the information needs of researchers, the library maintains and updates a full set of Philippine, international, and foreign standards. It has catalogues, journals, and other technical publications.

#### ***Sales***

The Sales Unit of the Standards Data Centre receives enquiries and fills orders for copies of local, foreign, and international standards, catalogues, standards related publications, and metrication materials.

### ***Publications***

The BPS Quarterly, the List of PS Licensees and Importers Issued the Import Commodity Clearance, ISO 9000 Certified Companies, and the Philippine National Standards Catalogue are regularly published by the Bureau to inform the public of its activities and services.

Other promotional materials on standards and standards related information are also published by the Bureau.

### ***Seminars***

The BPS conducts seminars nationwide to promote better understanding and application by industries of quality assurance and management system standards as well as quality control methods. The modern metric system is likewise a subject of many of its seminars. In these seminars, the BPS has opportunities to explain its basic policies, programs and services to the private sector. Apart from the lectures delivered, informative reading materials are distributed to participants to complement the training activities. Slides and films supplement further the information provided during seminars.

## **INTERNATIONAL STANDARDS WORK**

Recognizing the benefits of international standards to Philippine trade and industrial development, the BPS is intensifying its participation in international standardization activities.

### **● *ISO Participation***

The BPS is an active member of the International Organization for Standardization (ISO). Based in Geneva, the ISO at present comprises the national standards bodies of over ninety (90) countries.

As an ISO member-body, the BPS participates in the development of international standards. The BPS has obtained, on behalf of the Philippines, participating membership in the following ISO technical committees (ISO/TC):

- 1 - Screw Threads
- 2 - Fasteners
- 3 - Limits and Fits
- 4 - Rolling Bearings
- 6 - Paper, Board and Pulps
- 11 - Boilers and Pressure Vessels
- 17 - Steel
- 22 - Road Vehicles
- 23 - Tractors and Machinery for Agriculture and Forestry
- 33 - Refractories
- 34 - Agricultural and Food Products
- 35 - Paints and Varnishes
- 44 - Welding and Allied Processes

- 45 - Rubber and Rubber Products
- 55 - Sawn Timber and Sawlogs
- 58 - Gas Cylinders
- 59 - Building construction
- 61 - Plastics
- 63 - Glass Containers
- 68 - Banking and Related Technical Services
- 74 - Cement and Lime
- 89 - Wood-based Panels
- 91 - Surface Active Agents
- 94 - Personal Safety Protective Clothing & Equipment
- 122 - Packaging
- 126 - Tobacco and Tobacco Products
- 135/SC 7 - Non-destructive Testing
- 136 - Furniture
- 137 - Sizing System, Designation and Marking for Boots and Shoes
- 138 - Plastic Pipes, Fittings & Valves for the Transport of Fluids
- 146 - Air Quality
- 147 - Water Quality
- 155/SC 1 & 5 - Nickel & Alloys
- 156 - Corrosion of Metals & Alloys
- 159 - Ergonomics
- 162 - Doors and Windows
- 164 - Mechanical Testing and Metals
- 166 - Ceramic Ware, Glassware and Glass Ceramic Ware in Contact with Food
- 176 - Quality Management and Quality Assurance
- 180 - Solar Energy
- 181 - Safety of Toys
- 183 - Copper, Lead, and Zinc Ores and Concentrates
- 189 - Ceramic Tile
- 198 - Sterilization of Health Care Products
- 199 - Safety of Machinery
- 200 - Solid Wastes
- 207 - Environmental Management

The BPS has also represented the country in ISO General Assembly meetings, where substantive policy decisions governing international undertakings are made. It also participates in the ISO's Development committee (DEVCO), Conformity Assessment Committee (CASCO), and Consumer Policy Committee (COPOLCO). It has hosted in Manila training seminars under the auspices of ISO.

#### ● ***Regional Participations***

In regional standardization, the BPS has been actively participating as member in the activities of the Pacific Area Standards Congress (PASC), a forum which strengthens and supports the international standardization program of ISO and the International Electromechanical Commission (IEC). The sixth PASC meeting was held in Manila in 1978.

Important regional standardization projects have been pursued by the BPS with the national standards bodies of other ASEAN countries namely Brunei Darussalam, Indonesia, Malaysia, Singapore, Thailand, and Vietnam. The Philippines, through the BPS commenced in 1993 the implementation of the ASEAN standards harmonization program under the ASEAN Consultative Committee for Standards and Quality. ASEAN member countries undertake measures for the harmonization of standards, laboratory accreditation and the reciprocal recognition of test results, and certification of products and quality systems to remove technical barriers to intra-ASEAN trade.

Another regional standardization project which BPS participates in is the Asia Pacific Economic Cooperation (APEC) Sub-Committee on Standards and Conformance (SCSC) wherein 18-member economies have agreed to work toward the achievement of the following goals:

- Ensure the transparency of the standards and conformity assessment of APEC economies;
- Align APEC economies mandatory and voluntary standards with international standards;
- Establish mutual recognition among APEC economies of conformity assessment in the regulated and voluntary sectors; and
- Promote cooperation for technical infrastructure development to facilitate broad participation in mutual recognition arrangements in both the regulated and voluntary sectors

All these were envisioned to reduce costs, facilitate trade, and improve the efficiency of administrative processes related to trade in the region.

● ***WTO/TBT Inquiry Point***

To contribute to the expansion and diversification of Philippine exports, the BPS functions as the WTO/TBT Inquiry Point in connection with the country's implementation of obligations to the GATT Agreement on Technical Barriers to Trade (better known as the "Standards Code"). The Philippines acceded to the Code in 1981. In January 1996, the Philippines implemented the results of the Uruguay Round of Multilateral Trade Negotiation, which included a revision of the Agreement on Technical Barriers to Trade and the replacement of GATT with another institution known as the World Trade Organization (WTO) as initiated by the leading signatories of GATT. Through dialogues and exchange of information on technical rules and regulations, standards and conformity assessment procedures, signatory countries seek transparency in their international trading transactions. The Code provides a mechanism that helps prevent the creation of technical barriers to international trade.

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