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**SUBJECT: Guidelines for the Implementation of
DOLE D. O. No. 13, Series of 1998, On
Occupational Safety and Health in the
Construction Industry**

I. PURPOSE

This Department Order sets the guidelines, rules and procedures, to be followed by all concerned in the implementation of **Department of Labor and Employment D.O. No. 13 (DOLE D.O. No. 13), Series of 1998** otherwise known as the **"Guidelines Governing Occupational Safety and Health in the Construction Industry"**, with emphasis given on the methodology to be used in estimating the cost of construction safety and health program as required in Section 17.

II. PERTINENT LAWS

- A. The following provisions of existing laws serve as legal bases by the DPWH in formulating the herein guidelines in the implementation of **DOLE D. O. No. 13**.
1. **P. D. 442. The Labor Code of the Philippines**, passed in 1974 specifically **Book IV, Titles I and II**, which task **DOLE** to implement the "Revised and consolidated labor and social laws to afford full protection to labor, promote employment and human resources development and ensure industrial peace based on social justice".
 - a. **Article 162: Safety and Health Standards**. Which authorizes the Secretary of Labor by appropriate orders, set and enforce mandatory **Occupational Safety and Health Standards (OSHS)** to eliminate or reduce occupational safety and health hazards in all work places, and institute new, and update existing, programs to ensure safe and healthful working conditions in all places of employment.
 2. **OSH Legislation, Rules and Regulations Implementing Article 162, Book IV, Title I of P. D. 442, or the Occupational Safety and Health (OSH) Standards**. Passed in 1978 by **DOLE** specifically for the implementation of **Rule 1000 to Rule 1980**. It is a set of mandatory **OSH** standards which consolidates all safety orders being enforced prior to its promulgation. In general it contains administrative requirements, safety and health rules, technical safety regulations, and other measures to eliminate or reduce **OSH** hazards in the work place.
 - a. **Rule 1410. Construction Safety of the OSHS** specifically provides for the safety measures in construction undertakings.

3. **DOLE D. O. No. 13, Series of 1998, "Guidelines Governing Occupational Safety and Health in the Construction Industry".**
4. **DOLE D.O. No. 16, Series of 2001.** This order promulgates amendments to Rule 1030 (Training of Personnel in Occupational Safety and Health) of the OSHS.

III. GENERAL GUIDELINES

- A. In compliance with Section 17 of **DOLE D. O. No. 13**, the implementation of construction safety shall be considered in all stages of project procurement (design, estimate, and construction) and its cost shall be integrated to the overall project cost under **Pay Item "SPL- Construction Safety and Health" as a lump sum amount, to be quantified in the detailed estimate.** Likewise, all requirements, provisions, and instructions pertaining to the implementation of Construction Safety and Health in every project shall be included in the project bidding documents specifically under the Instructions to Bidders.

Further considering industry practices and applicable government requirements, the following guidelines are hereby issued to all concerned:

1. Section 1. Definition of terms

As used herein, the terms below shall be defined as follows:

- a. Occupational Safety and Health - As defined is the:
 - 1) Promotion and maintenance of the highest degree of physical, mental, and social well-being of workers in all occupation;
 - 2) Prevention among its workers of any departures from health caused by their working conditions;
 - 3) Protection among workers in their employment from risk usually from factors adverse to health; and,
 - 4) Placing and maintenance of worker in an environment adopted to his/her psychological ability.

b. Occupational Safety and Health Standard (OSHS)

By the powers vested in the Department of Labor and Employment under Article 162 of the Labor Code of the Philippines, the Occupational Safety and Health Standards (OSHS) was promulgated for the guidance and compliance of all concerned with the main objective of protecting every workingman against the dangers of injury, sickness or death through safe and healthful working conditions, thereby assuring the conservation of valuable manpower resources and the preservation of loss or damage to lives and properties, consistent with national development goals and with the

State's commitment for the development of every worker as a complete human being.

Likewise, further described as:

- rules and regulations implementing Article 162 (Safety and Health Standards), Book IV, Title I, P. D. 442;
 - set of mandatory OSH standards which codifies all safety orders being enforced prior to its promulgation; and
 - contains administrative requirements, general safety and health rules, technical safety regulations, and other measures to eliminate or reduce OSH hazards in the work place.
- c. Construction Safety and Health Standards – shall mean Rule 1410, Construction Safety and other relevant rules of the Occupational Safety and Health Standards (as amended) of the Department of Labor and Employment (DOLE).
- d. Construction Safety and Health Program – refers to a set of detailed rules to cover the processes and practices that should be utilized in a specific construction site in conformity with the OSHS including the personnel responsible and the penalties for violations thereof.
- e. Construction Safety and Health Officer – refers to safety personnel or any employee/worker trained by his employer to implement occupational safety and health programs in accordance with the provisions of DOLE D.O. No. 13 and the Occupational Safety and Health Standards (OSHS).
- f. Personal Protective Equipment (PPE) and Devices – are equipment and devices designed to protect employees from workplace injuries or illness resulting from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards. It also includes variety of devices and garments such as face shields, safety glasses, hard hats, safety shoes, goggles, coveralls, gloves, vests, earplugs, respirators, safety harness and lifelines.

2. Section 2. Purpose

The purpose of these guidelines is to establish a uniform methodology in estimating the required resources (manpower and equipment) for the implementation of Construction Safety and Health Standards in the workplace in compliance with the provisions of DOLE D.O. No. 13.

3. Section 3. Methodology

The minimum construction safety and health requirements for each project shall be prepared during the detailed engineering stage.

In order to establish a uniform basis for estimating the required quantity of resources (manpower and equipment) for a project the following methodology shall be used.

a. Construction Safety and Health Program (CSHP)

Section 5 of the DOLE D.O. No.13 provides that every construction project shall have a suitable Construction Safety and Health Program (CSHP).

For the purpose of these guidelines, all projects regardless of amount, funding source and mode of implementation shall comply with the minimum safety and health requirements.

The contractor's proposed CSHP shall be in accordance with DOLE D.O. No. 13, series of 1998 and it's Procedural Guidelines to be submitted as part of the first envelope (Technical Proposal) during the bidding process and later the winning bidder shall submit the same for approval of the DPWH authority, subject to concurrence by DOLE-BWC.

For project to be implemented by administration, a CSHP shall also be prepared by the DPWH Implementing Office in accordance with the requirements of DOLE D. O. No. 13, s. of 1998 and likewise it shall also be submitted to DPWH authority for approval and thereafter to be concurred also by the DOLE-BWC.

The required Construction Safety and Health Program (CSHP) for specific project shall include but not limited to the following:

- a. composition of the Safety and Health personnel responsible for the proper implementation of CSHP;
- b. specific safety policies which shall be undertaken in the construction site, including frequency of and persons responsible for conducting toolbox and gang meetings;
- c. penalties and sanctions for violations of the Construction Safety and Health Program;
- d. frequency, content and persons responsible for orienting, instructing and training all workers at the site with regard to the Construction Safety and Health Program which they operate; and
- e. the manner of disposing waste arising from the construction.

b. Construction Safety and Health Organization

To ensure that the Construction Safety and Health Program are observed and implemented at the project site, at the start of

construction, each site shall have an established construction safety and health organization composed of the following personnel:

b.1 Safety Engineer/Officer

Section 7.1 of D.O. No.13 states that "The general contractor must provide for a full time Officer, who shall be assigned as the General Construction Safety and Health Officer to oversee full time the overall management of the Construction Safety and Health Program".

Section 7.2 states that " The general contractor must provide for additional Construction Safety and Health Officer/s in accordance with the requirements for Safety Man / Officer of Rule 1033, Training and Personnel Complement, as amended by DOLE D.O. No. 16 depending on the total number of personnel assigned to the construction project site, to oversee the effective compliance with the Construction Safety and Health Program at the site, under the direct supervision of the General Construction Safety and Health Officer".

For the purpose of these guidelines, and as recommended by DOLE, for every construction project with 100 and above workers, an accredited safety officer by DOLE-BWC shall be employed. Only the cost for the Construction Safety and Health Officer, whether on full time or part time basis, actually assigned at the construction site shall be included in the cost estimate.

On the part of the government, the implementing office shall designate as part of their project staff a Safety Engineer who shall be responsible for ensuring compliance with the pertinent DOLE Guidelines as well as the DPWH Guidelines on Occupational Safety and Health during the execution of the construction. The counterpart safety and health officer of the contractor shall closely coordinate and report to the government Safety Engineer.

b.2 Health Personnel

Rule 1412.01 of OSHS states that "at every construction site there shall be an organized and maintained medical and dental health service and personnel conforming with Rule 1960 Occupational Health Services.

For the purpose of these guidelines only the medical and dental practitioners actually assigned in the project site and as required on the above stated Rule shall be included in the total cost of safety.

Manpower rates shall be based on the prevailing rates of such professionals in the area which is found favorable to the government. Employment period shall be based on the approved project duration

and shall be adjusted correspondingly as the duration increases/decreases.

c. Personal Protective Equipment and Devices (PPE)

Section 6 (Personal Protective Equipment) of D. O. No. 13 guidelines states that "every employer shall, at his own expense, furnish his workers with protective equipment for eyes, face, hands and feet, lifeline, safety belt/harness, protective shields and barriers whenever necessary by reason of the hazardous work process or environment, chemical or radiological or other mechanical irritants of hazards capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical agent".

All Personal Protective Equipment and Devices shall be in accordance with the requirement of the Occupational Safety and Health Standards (OSHS) and should pass the test conducted and/or standards sets by the Occupational Safety and Health Center (OSHC).

For General Construction Work the required Basic PPEs for all workers shall be Safety Helmet, Safety Gloves and Safety Shoes.

Specialty PPEs shall be provided to workers in addition to or in lieu of the corresponding basic PPE as the work or activity requires.

d. Signages and Barricades

Construction Safety Signages and Barricades shall be provided as a precaution and to advise the workers and the general public of the hazards existing in the worksite.

For road construction signages and barricades, it shall be in accordance with or in compliance to Department Circular No. 9, Series of 2004 (Re: Road Safety Manuals and Handbooks) particularly on the Road Works Safety Manual.

e. Facilities

Section 16 of DOLE D.O. No.13 requires that the employer shall provide the following welfare facilities in order to ensure humane working conditions;

- a. adequate supply of safe drinking water;
- b. adequate sanitary and washing facilities;
- c. suitable living accommodation for workers, and as may be applicable, for their families; and

- d. separate sanitary, washing and sleeping facilities for men and women workers.

For the purpose of these guidelines, facilities related to construction safety and health shall be in accordance with OSH Standards and the manner of costing shall be based on previously approved guidelines of the Department, duly quantified as a separate pay item.

- f. **Safety and Health Training**

Section 13 of DOLE D.O. No. 13 requires that the contractor shall provide continuing construction safety and health training to all technical personnel under his employ.

4. **Section 4. Costing**

In consideration of the cost involved of providing the necessary safety equipment and manpower for an effective implementation of safety in the workplace, and in compliance with DOLE D.O. No. 13, with safety as a separate pay item, the following shall be used as a guide:

- a. **Personal Protective Equipment**

The PPEs shall be provided by the Constructor, and its cost shall be duly quantified and made part of the **overall cost of safety and health (SPL)**. The use of PPEs shall conform to Rule 1080, Personal Protective Equipment and Devices of OSHS.

Matrix No.1 shall be used as a guide in determining the required Specialized PPEs for works that requires specialized skills or conditions.

Matrix No. 2 shall be used as a guide in determining the unit cost of PPEs based on their established service life.

Matrix No.3A & 3B shall be used to summarize the required Basic and Specialized PPEs correspondingly and their rate of usage in man-days as established in the unit cost derivation of each specific pay item.

See attached sample computation.

- b. **Clinical Materials and Equipment**

Clinical materials and equipment such as medicines, beds and linens, other related accessories shall be to the account of the Constructors implementing the project and shall be in accordance with Rule 1960, Occupational Health Services of OSHS.

c. Signages and Barricades

The quantities and cost of signages and barricades necessary for a specific item of work shall be quantified and made part of that particular pay item of work.

For general signages and barricades not included in specific pay item of work but necessary for promoting safety in and around the construction site, the quantities and cost shall be a separate pay item and included in the overall cost of safety and health (SPL).

d. Facilities

Facilities such as portable toilets, waste disposal, sanitary and washing facilities, convenient dwellings and office, adequate lighting, and other facilities related to construction safety and health shall be in accordance with OSH Standards and previously approved guidelines of the Department and shall be quantified and the cost thereof be made a separate pay item under "Facilities for the Engineers" and "Other General Requirements" as required in the DPWH Standard Specifications.

e. Salaries/wages of Health and Safety Personnel

Labor cost for the medical and safety personnel actually assigned in the field shall be included in the overall cost of safety and health (SPL). Manpower cost shall be established based on the cost of labor in the area (see attached sample computation). Duration of employment shall be based on project duration of the particular project.

f. Safety and Health Training

Cost associated for the provision of basic and continuing construction safety and health training to all safety and technical personnel shall be made part of the indirect/overhead cost of the project.

IV. VIOLATIONS AND PENALTIES

- A. The Implementing Office shall initiate the reporting of constructors found violating safety rules and regulations to PCAB in conformance with Section 19.1 of DOLE D.O. No. 13. Likewise, reports generated by the CPES in the course of their conduct of the contractor's performance evaluation and those coming from other offices that conduct periodic evaluation of projects shall also be used as basis for filing the necessary report/recommendation to PCAB.

- B. In cases of imminent danger situations, the Implementing Office shall issue a stoppage order in conformance with Section 19.2 of DOLE D.O. No.13.
- C. Constructors, consultants, and officials found violating safety rules and regulations shall be meted sanctions depending on the gravity of offense and contractors constantly caught violating shall be recommended for blacklisting. Likewise, the amount corresponding to non-compliance shall be deducted from the contractor's billing.

For project undertaken by contractors, monitoring, implementation and enforcement of construction safety and health shall be in accordance with the provisions of the Labor Code of the Philippines and its Implementing Rules and Regulations, inclusive of the Occupational Safety and Health Standards, DOLE D.O. No. 13, s.1998 and its Procedural Guidelines, other pertinent and applicable DOLE issuances governing employer-employee relationships, contracting and sub- contracting arrangements.

For project undertaken through administration, Officials and staff of the implementing office found not implementing the requirements of the Construction Safety and Health Program and this Department Order shall be meted sanctions as prescribed in Table 1 of this issuance and other pertinent rules and regulations applicable to government Officials and employees.

All officials and employees will be required to explain in writing for any violation committed prior to the imposition of sanctions. If their explanations are not acceptable sanctions shall be imposed.

TABLE 1

Official	1st Offense	2nd Offense	3rd offense	Succeeding offense
Head, Implementing Office	Warning	susp. for 1 wk.	susp. for 2 wks.	Susp. for 1mo.
Project Manager, IO	Warning	susp. For 2 wks.	Susp. for 1mo.	Susp. for 2mo.
Project Engineer, IO	Warning	susp. For 2 wks.	Susp. for 1mo.	susp. for 2mo.
Team Leader, Consultant	Warning	susp. for 1 wk.	susp. for 2 wks.	susp. for 1mo.
Chief RE, Consultant	Warning	susp. For 2 wks.	susp. for 1mo.	susp. for 2mo.
RE, Consultant	Warning	susp. For 2 wks.	susp. for 1mo.	susp. for 2mo.
RE, Contractor	Reprimand	susp. For 2 wks.	susp. for 1mo.	susp. for 2mo.
Safety Man, Contractor	Reprimand	Susp. for 1mo.	susp. for 2mo.	Termination
Contractor	Reprimand	1st warning	2nd warning	Blacklisting

Note: The corresponding cost of non-compliance shall be deducted from the contractor's billing for the period

V. ADDITIONAL GUIDELINES

In all aspects of the implementation of this guidelines, the OSH Standard, and Guidelines Governing Occupational Safety and Health in the Construction Industry or "DOLE D.O. No. 13" its contents, rules, and procedures shall form part of this Department Order.

VI. SUPERVISION, CONTROL AND MONITORING

Overall supervision, control and monitoring of the implementation of Construction Safety and Health Program for projects undertaken by administration/contracts shall be under the Bureau of Construction.

VII. EFFECTIVITY

This Department Order supersedes or amends all Department Orders and issuances or portions thereof inconsistent herewith, and takes effect immediately.


HERMOGENES E. EBDANE, JR.
Acting Secretary



WIN5W00012

SAMPLE COMPUTATION - DETAILED ESTIMATE

PROJECT NAME : CONSTRUCTION OF 6-CL SCHOOL BUILDING

LOCATION :

ITEM NO : 801

DESCRIPTION : Removal of Existing Structure

QUANTITY:

UNIT

6-CL

units

	DESCRIPTION	QTY	UNIT	UNIT COST	AMOUNT
A.	MATERIALS				
	Sub Total A				-
	DESCRIPTION	QTY	DAYS	RATE	AMOUNT
B.	LABOR				
	Construction Foreman	1.00	20.00	277.30	5,546.00
	Laborers	10.00	20.00	194.70	38,940.00
	Total Man-days = 220				
	Sub Total B				44,486.00
	DESCRIPTION	QTY	DAYS	RATE	AMOUNT
C.	EQUIPMENT				
	Air compressor w/jackleg	1.00	5.00	5,132.00	25,660.00
	Backhoe	1.00	2.00	6,808.00	13,616.00
	Dump truck	1.00	2.00	4,744.00	9,488.00
	Sub Total C				48,764.00
D	Total Direct Cost (A+B+C)				93,250.00
E	Mark-Up (27% of D)				25,177.50
F	VAT 10% of (D + E)				11,842.75
G	Total Cost				130,270.25
H	Unit cost				21,711.71

PROJECT NAME : CONSTRUCTION OF 6-CL SCHOOL BUILDING

LOCATION :

ITEM NO : 103

DESCRIPTION : Structures Excavation

QUANTITY: 1,140.00
UNIT cu. m.

	DESCRIPTION	QTY	UNIT	UNIT COST	AMOUNT
A.	MATERIALS				
	Sub Total A				-
	DESCRIPTION	QTY	DAYS	RATE	AMOUNT
B.	LABOR				
	Construction Foreman	1.00	5.00	277.30	1,386.50
	Laborers	10.00	5.00	194.70	9,735.00
	Total Man-days = 55				
	Sub Total B				11,121.50
	DESCRIPTION	QTY	DAYS	RATE	AMOUNT
C.	EQUIPMENT				
	Backhoe	1.00	5.00	6,808.00	34,040.00
	Dump truck	2.00	5.00	4,744.00	47,440.00
	Sub Total C				81,480.00
D	Total Direct Cost (A+B+C)				92,601.50
E	Mark-Up (27% of D)				25,002.41
F	VAT 10% of (D + E)				11,760.39
G	Total Cost				129,364.30
H	Unit Cost				113.48

PROJECT NAME : CONSTRUCTION OF 6-CL SCHOOL BUILDING

LOCATION :

ITEM NO : 405

DESCRIPTION : Structural Concrete

QUANTITY: 384.00

UNIT cu. m.

	DESCRIPTION	QTY	UNIT	UNIT COST	AMOUNT
A.	MATERIALS				
	Premix concrete (3500 psi)	404	cu.m.	2,600.00	1,050,400.00
	1/2" x 4' x 8' Marine Plywood	50	pcs.	575.00	28,750.00
	2"x2"x12' Form lumber	2000	b.f.	19.50	39,000.00
	2"x3"x12' Form lumber	2500	b.f.	19.50	48,750.00
	2"x4"x12' Form lumber	2000	b.f.	19.50	39,000.00
	Assorted CW Nails	200	kgs.	35.00	7,000.00
	Water	365	drums	22.00	8,030.00
	Sub Total A				1,220,930.00
	DESCRIPTION	QTY	DAYS	RATE	AMOUNT
B.	LABOR				
	Construction Foreman	1	21	277.30	5,823.30
	Masons	15	21	209.90	66,118.50
	Carpenters	15	21	209.90	66,118.50
	Laborers	30	21	194.70	122,661.00
	Total Man-days = 1281				
	Sub Total B				260,721.30
	DESCRIPTION	QTY	DAYS	RATE	AMOUNT
C.	EQUIPMENT				
	Portable Concrete Vibrator	2	12	600.00	14,400.00
	Water Truck	1	12	7,744.00	92,928.00
	H-Frames w/cross bracings & Accs.	100	30	75.00	225,000.00
	Sub Total C				332,328.00
D	Total Direct Cost (A+B+C)				1,813,979.30
E	Mark-Up (27% of D)				489,774.41
F	VAT 10% of (D + E)				230,375.37
G	Total Cost				2,534,129.08
H	Unit Cost				6,599.29

PROJECT NAME : CONSTRUCTION OF 6-CL SCHOOL BUILDING

LOCATION :

ITEM NO : SPL - 1

DESCRIPTION : Safety and Health

QUANTITY:

UNIT

Lump Sum

	DESCRIPTION	QTY	UNIT	UNIT COST	AMOUNT
A.	MATERIALS				
	Safety Shoes	1556	Man-day	2.77	4,310.12
	Safety Helmet	1556	Man-day	0.25	389.00
	Safety Gloves	1556	Man-day	7.67	11,934.52
	Note: > Total Man-days = 1,556 > Include Specialized Personal Protective Equipment (PPE) if needed > Include cost of signages and barricades if needed.				
	Sub Total A				16,633.64
	DESCRIPTION	QTY	DAYS	RATE	AMOUNT
B.	LABOR				
	First Aider	1.00	45.00	280.00	12,600.00
	Part time Safety Practitioner	1.00	6.00	500.00	3,000.00
	Note: For less than 100 workers Part time Safety Practitioner Project Duration is 45 CD				
	Sub Total B				15,600.00
	DESCRIPTION	QTY	DAYS	RATE	AMOUNT
C.	EQUIPMENT				
	Sub Total C				
D	Total Direct Cost (A+B+C)				32,233.64
E	Mark-Up (27% of D)				8,703.08
F	VAT 10% of (D + E)				4,093.67
G	Total Cost				45,030.40
H	Lump Sum				45,030.40

Cost Analysis:

Total Project Cost without the Cost of Safety and Health

2,793,763.63

Additional Cost of Safety and Health

45,030.40

Total Project Cost including the Cost of Safety and Health

2,838,794.02

Percentage Increase in Cost

1.61%

MATRIX NO. 1 - SPECIALIZED PPES

D.O. No. 56 s. 2005

CONSTRUCTION WORK/ACTIVITY	REMARKS	SPECIALIZED PPE	FOREMAN	LEADMAN	MASON	CARPENTER	STEELMAN	PLUMBER	SANDER/STONE CUTTER	PAINTER	MECHANIC	ELECTRICIAN	WELDER	HELPER	EXCAVATOR	JACKHAMMER OPTR	HEAVY EQUIPT OPTR
1 Work near unprotected areas 2m or more above the ground such as but not limited to the ff: a) working on scaffolds b) working on roofs	Where there is possibility of fall that will normally cause disabling injury	Safety belt/Body Harness			O	O	O	O		O		O	O	O			
2 Work involving pouring of concrete. Such as but not limited to the following: a) laying of concrete slab b) pouring of concrete for beams and/or columns	A If worker's feet may have contact with fresh concrete B If worker's hands may have contact with fresh concrete	A Safety chemical resistant boots B Chemical resistant gloves			X									X			
3 Work involving laying of asphalt	If worker needs to work on or near hot asphalt	Heat resistant gloves Safety footwear			X									X			
4 Working with derricks and cranes	Proper visibility and identification of critical persons such as operators, riggers, signal men A For riggers B For riggers C For signal men	Color-coded vest with reflectorized markings Heavy leather gloves, goggles High visibility gloves, goggles															
5 Working with earth moving equipment	Safety shoes for relatively dry or sheltered work Water and mud resistant boots for wet outdoor works When working near or on noisy equipt. For spotters For all workers within immediate vicinity of equipment	A Heavy duty safety footwear B Ear muf or ear plugs C High visibility gloves D High visibility vest															

Note: X - Must; O - Optional (as the work or activity requires)

CONSTRUCTION WORK/ACTIVITY	REMARKS	SPECIALIZED PPE	FOREMAN	LEADMAN	MASON	CARPENTER	STEELMAN	PLUMBER	SANDER/STONE CUTTER	PAINTER	MECHANIC	ELECTRICIAN	WELDER	HELPER	EXCAVATOR	JACKHAMMER OPTR	HEAVY EQUIPT OPTR
6 Manual excavation or digging	When work may involve being hit by falling materials	Padded vest												O			
7 Work on top of or bodies of water	When there is danger of fall into deep water	Life vest Safety belt/Body Harness	O	O	O	O	O	O		O		O	O	O	O	O	O
8 Work where hot cutting and welding of metals are involved	For welders and gas cutters	A Heat resistant light filtering face shield											X	O			
		B Heat resistant and heat insulating gloves											X	O			
		C Metal fume filtering respirators											X	O			
		D Heat resistant protective clothing											X	O			
		E Light filtering and heat resistant face goggles											X	O			
9 Work involving exposure to or handling of hot materials or work near open flames	For handling hot substances and materials	A Heat resistant and heat insulating gloves												O			
	For working in hot working environment	B Heat insulating protective clothing												O			
	For working near open flame	C Heat resistant face shield												O			
	Electrical resistance must be suitable for the maximum electrical voltage of energized parts that may be handled by worker	A Electrically resistant gloves B Electrically resistant safety shoes C Electrically resistant helmet										X					
10 When working with live electricity above 50 volts AC or DC												X					

Note: X - Must; O - Optional (as the work or activity requires)

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CONSTRUCTION WORK/ACTIVITY	REMARKS	SPECIALIZED PPE	FOREMAN	LEADMAN	MASON	CARPENTER	STEELMAN	PLUMBER	SANDER/STONE CUTTER	PAINTER	MECHANIC	ELECTRICIAN	WELDER	HELPER	EXCAVATOR	JACKHAMMER OPTR	HEAVY EQUIPT OPTR
15	For atmosphere containing not more than ten times the recommended TLV	A															
Working with atmospheres containing contaminants above recommended Threshold Limit Values for air borne contaminants	If contaminant may irritate eyes	B															
	For environment containing more than ten times the recommended TLV	C															
	If contaminant may enter through skin	D															
16	Working under high pressure																
17	Working near vehicular traffic	A															
		B															
18	Work involves working underwater	A															
		B															
19	Working at night under low lighting condition																

Note: X - Must; O - Optional (as the work or activity requires)

MATRIX NO. 2

SAMPLE COMPUTATION - PPE UNIT COST ESTIMATE

PERSONAL PROTECTIVE EQUIPMENT										
	HELMET	SAFETY SHOES	WORKING GLOVES	RAIN COATS	DUST MASK	EYE GOGGLES	EAR MOP	BODY HARNESS	LANYARD	RUBBER BOOTS
SERVICE LIFE, DAYS	730	365	3	730	1	60	730	730	730	365
PURCHASE COST, PPh	180.55	1,012.00	23.00	245.00	63.25	169.05	602.60	1,263.85	1,083.30	506.00
UNIT COST PER MAN-DAY	0.25	2.77	7.67	0.34	63.25	2.82	0.83	1.73	1.48	1.39
BASIC PPEs FOR ALL WORKERS										
Helmet	0.25									
Safety Shoes	2.77									
Working Gloves	7.67									
TOTAL	10.69	Per man-day								

PERSONAL PROTECTIVE EQUIPMENT SERVICE LIFE

PPE	LIFE	REMARKS
HELMET HEADGEAR	1 year	Poly Ethelyne (PE) material
	2 years	Nylon material
	2 years	High Density Poly Ethelyne (DHPE) material
SAFETY SHOES	1- 2 months	Stitched Neorene or Nitrile
	4 months	Vulcanized Neorene or Nitrile
	1 year	Injected Poly Ureth. (PU), w/o steel midsole
WORKING GLOVES	1 - 3 days	Maong material
KNITTED GLOVES	1 2 days	
RAINCOATS	1 - 2 yrs.	Reinforced, hip length small, medium, large
DUST MASK	Daily	Disposable
	2 weeks	Reusable
EYE GOGGLES	2 mos.	Circular
EAR PROTECTORS	2 years	Ear guard
	1 - 2 mos.	Ear Plugs, reusable
	Daily	Ear Plugs, disposable
BODY HARNESS	2 years	Full body harness, Unless a fall occurs
SAFETY LANYARD	2 years	Webbing lanyard, Unless a fall occurs
SAFETY RUBBER BOOT	1 - 2 yrs.	Men, long, w/steel toe, black

All the above PPEs should pass the test conducted and or standards sets by the Philippine Occupational Safety and Health Center (OSHC)

ITEM NO	WORKERS	SAFETY HELMET	SAFETY SHOES	SAFETY GLOVES LEATHER/DENIM	DAYS	MAN-DAYS	UNIT COST	TOTAL COST
801	FOREMAN	1	1	1	20	20	10.69	213.8
	LABORER	10	10	10	20	200	10.69	2138
103	FOREMAN	1	1	1	5	5	10.69	53.45
	LABORER	10	10	10	5	50	10.69	534.5
405	FOREMAN	1	1	1	21	21	10.69	224.49
	MASON	15	15	15	21	315	10.69	3367.35
	CARPENTER	15	15	15	21	315	10.69	3367.35
	LABORER	30	30	30	21	630	10.69	6734.7
	TOTAL	83	83	83	134	1556		16,633.64

MATRIX NO. 3B (WORKSHEET)
SPECIALIZED PERSONAL PROTECTIVE EQUIPMENT (PPes)

[illegible]