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Environmental Measurements Report

June 2007

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Acknowledgment:

In its efforts to maintain the safety of its employees and to protect their health and lives, (our client) has initiated an environmental observation program to periodically measure exposures in the (our client) work environment.

The program also measures air pollutants in different sites surrounding the farm boundaries through contracting Settec ltd. to perform these measurements. The first part of the study was conducted during the month of November 2006.



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PART (I) Evaluation of Workers Exposures Levels



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1- Introduction:

As an agricultural company, Magrabi Agriculture is committed to sustainable agriculture and encourages the implementation of integrated crop management (ICM) which is a common-sense approach that combines the ecological care of a diverse and healthy environment with the economic demands of agriculture.

Within its ecological care of a diverse and healthy environment; Magrabi Agriculture's environmental policy covers the following issues:

- Rational use of plant protection products
- Rational use of fertilizers and manures
- Pollution prevention
- Efficient use of energy, water and other natural resources
- Re-cycling & re-use of materials
- Wildlife and landscape conservations and enhancement

Magrabi Agriculture is using professional services to evaluate the impact of Magrabi Agriculture's farming activities on the environment and also the employees on site.

In respect of the company's environmental plane which aims to keep peace with Egyptian Environmental Law No. 4 for the year 1994 and it's modified executive regulation with the decree No. 1741 for the year 2005; and the Minister of Labors Force and Migration decision No 211 for the year 2003, The company had prepared this study through the working team from SETTEC Company.

This study aims to measure the exposures in working environment inside the facility, to make sure that these exposures are within the accepted ranges as specified by the environmental law. These exposures are:-

- 1- Total Suspended Particulate
- 2- Nitrogen Oxides and Sulfur Oxides
- 3- Carbon Monoxide
- 4- Noise Intensity Level
- 5- Heat Stress
- 6- Lighting Intensity Level
- 7- Emitted Air Contaminants
- 8- Acetic Acid Concentration
- 9- Concentration of Phospho Organic Group, Carbaryl Group and Mineral Oil Mist



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2- Measuring Methods and used the instrument:

1. Noise intensity levels:

Using sound level meter from Quest Technologies Com. Ins. U.S.A. Calibrated at 114 db



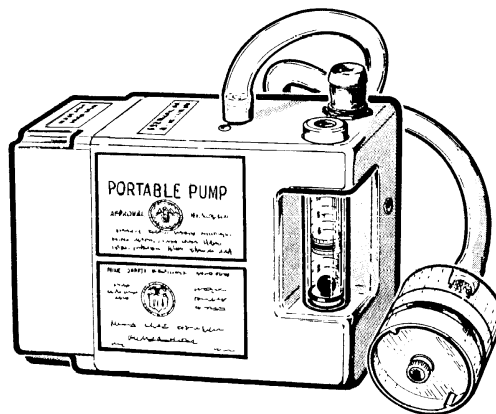
2. Heat Stress:

Using Quest Temp 32 from Quest Technologies Com. Ins. U.S.A.



3. Organic Compounds:

Using activated charcoal for sampling by “Personal Pump“and Analysis the Sample by using “Gas Chromatograph





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4. Emitted Pollutants:

Using "IMR 1400PS – Gas Analyzer" from Environmental Equipment, Inc-U.S.A



5. Lighting Intensity Level:

Using Delta-OHM-HD8366 Luxmeter



6. Gas Monitoring:

Using Multi-check 2000 from Quest Technologies Com. Ins. U.S.A.





3- Evaluation of Workers' Exposure Levels and Pollutants Concentrations in the Work Environment:

3-1 Evaluation of Ambient Air Pollutants around the Farm

3.1.1 Evaluation of Total Suspended Particulate "TSP" in mg/m3.

No.	Location and Direction of Air Sampling Station	Mean Conc. of "TSP" mg/m3
1	Irrigation Station No. 1 " Control Room – West "	111.8
2	Gate No. 20 " South West "	104.9
3	Behind Carpenter Workshop " South "	127.2
4	Irrigation Station No. 13 " Control Room – South "	119.4
5	Irrigation Station No. 20 " Control Room – East "	108.1
6	Meat Service Room " North "	115.4
7	Service Room No. 40 " North "	121.3
8	El-Nasr Service Room " North West "	118.2
Maximum Allowable Concentration of Air Pollutant *		" Daily Average " 230.0

* Maximum Allowable Concentration of Air Pollutant According to Annex No. 5 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 .

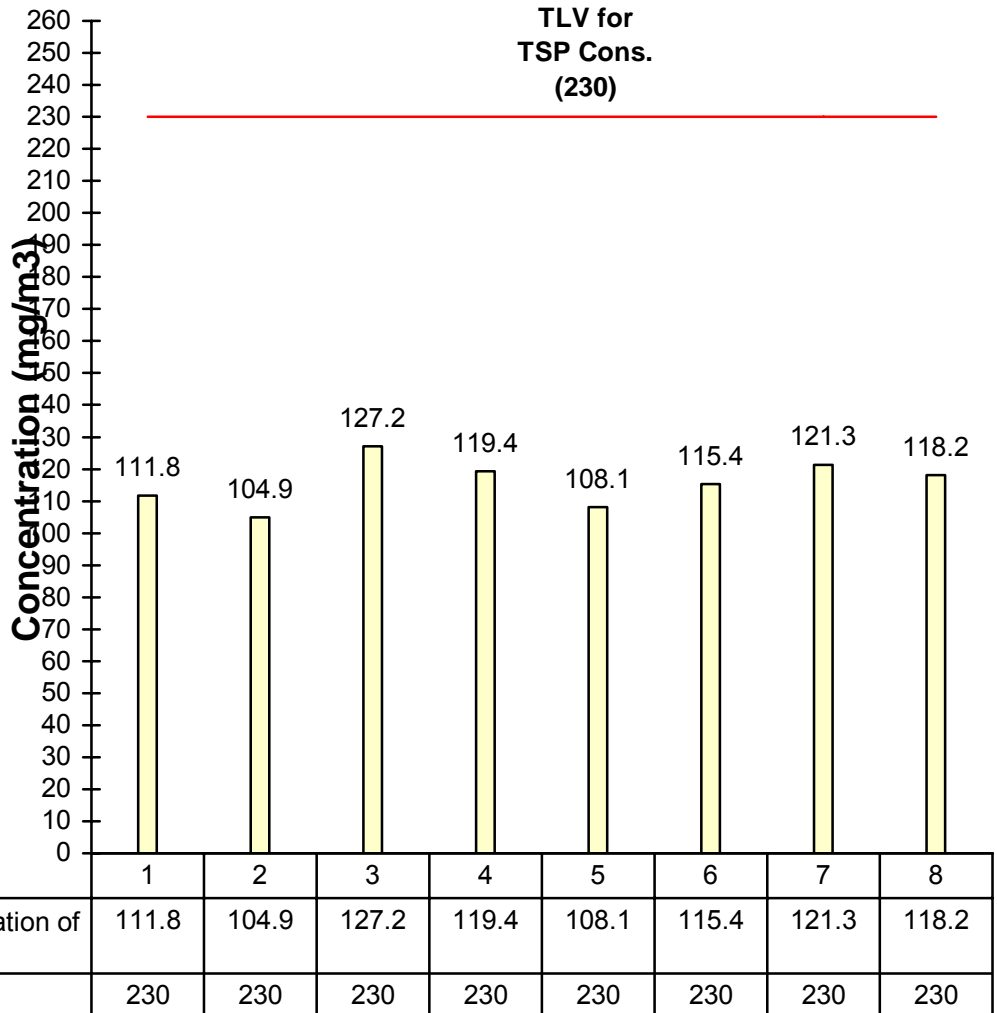


Figure (1):
Evaluation of
Total Suspended
Particulate

- 1- Irrigation Station No. 1 "Control Room – West"
- 2- Gate No. 20 "South West"
- 3- Behind Carpenter Workshop "South"
- 4- Irrigation Station No. 13 "Control Room – South"
- 5- Irrigation Station No. 20 "Control Room – East"
- 6- Meat Service Room "North"
- 7- Service Room No. 40 "North"
- 8- El-Nasr Service Room "North West"



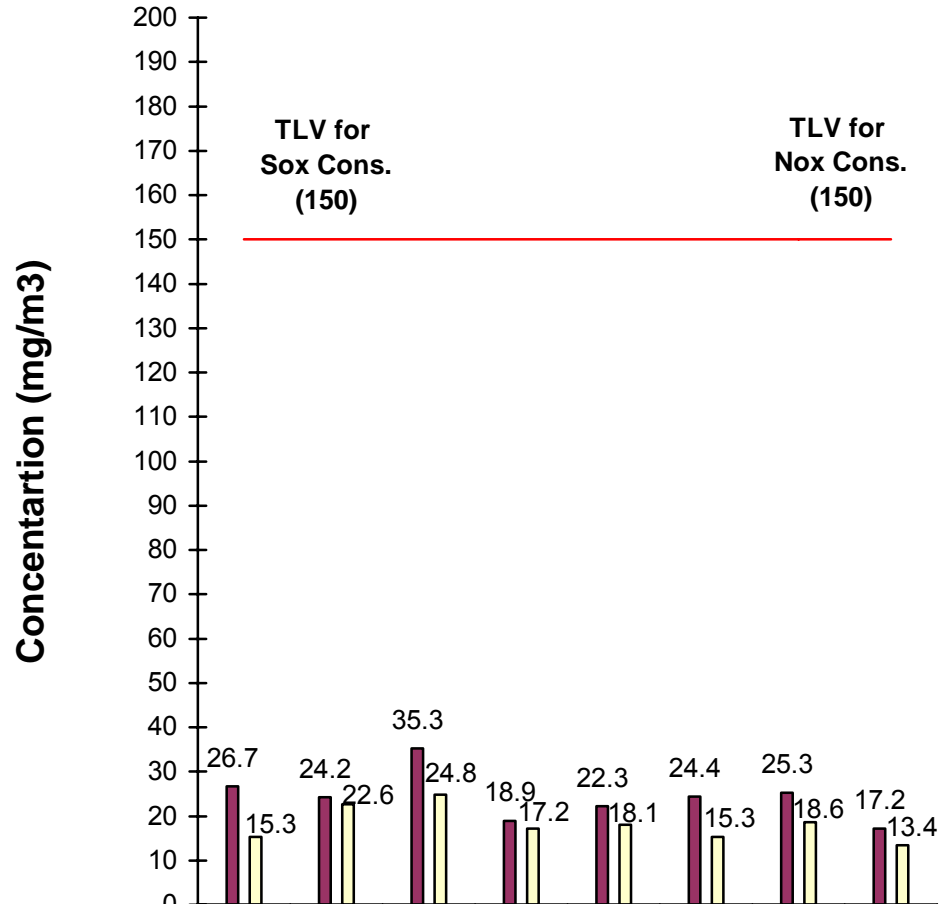
3.1.2 Evaluation of Nitrogen Oxides and Sulfur Oxides in mg/m3:

No.	Location and Direction of Air Sampling Station	Mean Concentration of Pollutants mg/m3	
		SOx	NOx
1	Irrigation Station No. 1 “ Control Room – West “	26.7	15.3
2	Gate No. 20 “ South West “	24.2	22.6
3	Behind Carpenter Workshop “ South “	35.3	24.8
4	Irrigation Station No. 13 “ Control Room – South “	18.9	17.2
5	Irrigation Station No. 20 “ Control Room – East “	22.3	18.1
6	Meat Service Room “ North “	24.4	15.3
7	Service Room No. 40 “ North “	25.3	18.6
8	El-Nasr Service Room “ North West “	17.2	13.4
Maximum Allowable Concentration of Air Pollutant *		Daily Average 150.0	Daily Average 150.0

* Maximum Allowable Concentration of Air Pollutant According to Annex No. 5 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005.



Figure (2):
Evaluation of
Nitrogen Oxides
and Sulfur Oxides



Mean Concentration of SOx (mg/m3)	26.7	24.2	35.3	18.9	22.3	24.4	25.3	17.2
Mean Concentration of NOx (mg/m3)	15.3	22.6	24.8	17.2	18.1	15.3	18.6	13.4
TLV for SOx Concentration (mg/m3)	150	150	150	150	150	150	150	150
TLV for NOx Concentration (mg/m3)	150	150	150	150	150	150	150	150

- 1- Irrigation Station No. 1 "Control Room – West"
- 2- Gate No. 20 "South West"
- 3- Behind Carpenter Workshop "South"
- 4- Irrigation Station No. 13 "Control Room – South"
- 5- Irrigation Station No. 20 "Control Room – East"
- 6- Meat Service Room "North"
- 7- Service Room No. 40 "North"
- 8- El-Nasr Service Room "North West"



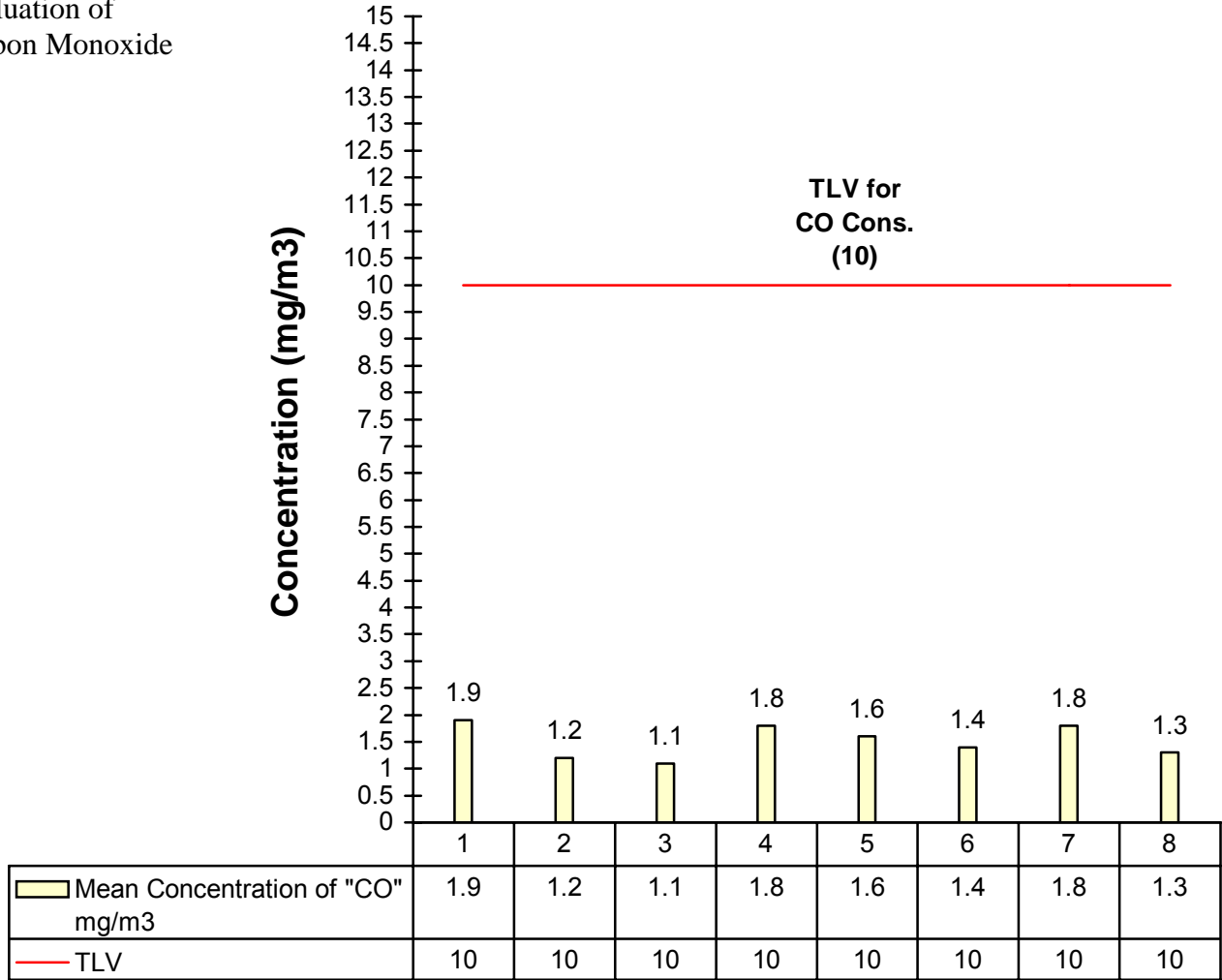
3.1.3 Evaluation of Carbon Monoxide in mg/m3:

No.	Location and Direction of Air Sampling Station	Mean Concentration of CO mg/m3
1	Irrigation Station No. 1 “ Control Room – West “	1.9
2	Gate No. 20 “ South West “	1.2
3	Behind Carpenter Workshop “ South “	1.1
4	Irrigation Station No. 13 “ Control Room – South “	1.8
5	Irrigation Station No. 20 “ Control Room – East “	1.6
6	Meat Service Room “ North “	1.4
7	Service Room No. 40 “ North “	1.8
8	El-Nasr Service Room “ North West “	1.3
Maximum Allowable Concentration of Air Pollutant *		Average of 8 Hours 10.0

* Maximum Allowable Concentration of Air Pollutant According to Annex No. 5 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005.



Figure (3):
Evaluation of
Carbon Monoxide



- 1- Irrigation Station No. 1 "Control Room – West"
- 2- Gate No. 20 "South West"
- 3- Behind Carpenter Workshop "South"
- 4- Irrigation Station No. 13 "Control Room – South"
- 5- Irrigation Station No. 20 "Control Room – East"
- 6- Meat Service Room "North"
- 7- Service Room No. 40 "North"
- 8- El-Nasr Service Room "North West"



3-2 Evaluation of Worker Exposure Levels and Concentration of Air Contaminants at Work Environment:

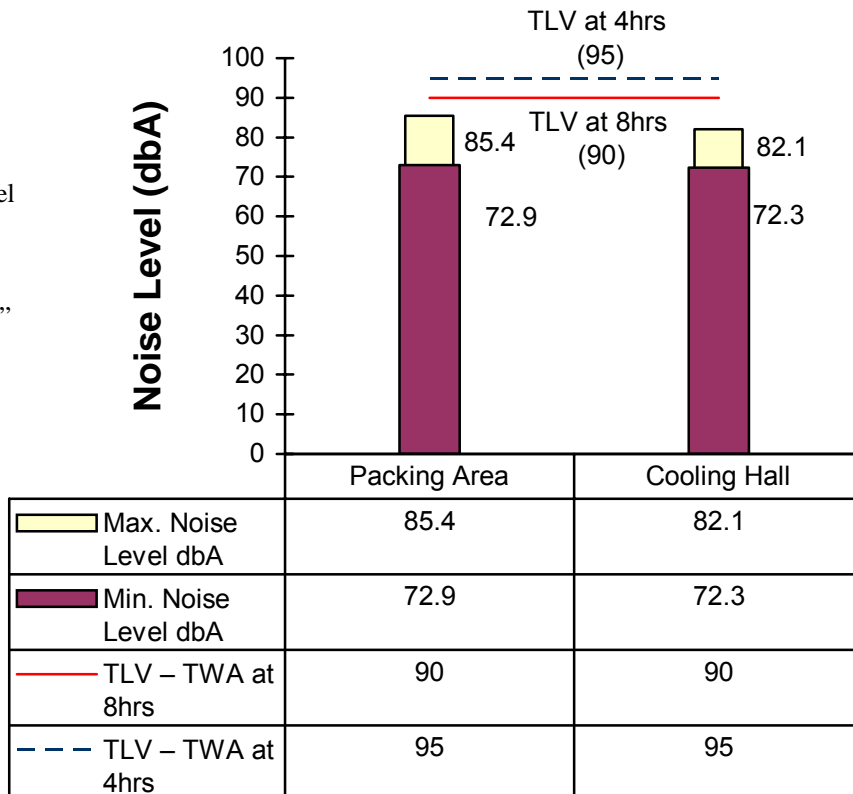
3.2.1 Selecting and Packing Station “Strawberry and Grapes “Soft Fruits”:

3.2.1.1 Evaluation of Noise Intensity Level In dbA

Location of Evaluation	Time of Exposure “ Hours “	Noise Level “ dbA “	TLV – TWA *
Packing Area	8.0	72.9 – 85.4	90.0
Cooling Hall	4.0	72.3 – 82.1	95.0

* Threshold Limit Values – Time Weighted Average According to Annex No. 7 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table No.1).

Figure (4):
Noise Intensity Level
In Selecting and
Packing Station
“Strawberry and
Grapes “Soft Fruits”



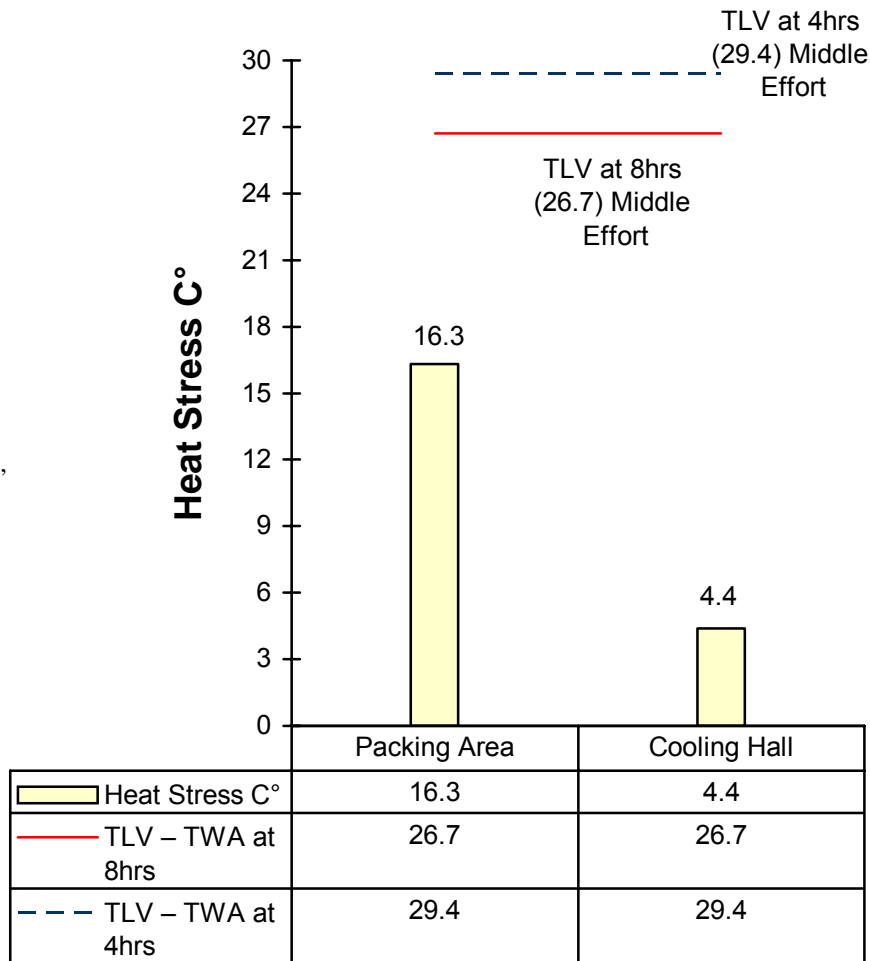


3.2.1.2 Evaluation of Heat Stress In C° from Wet Bulb Glob Thermometer:

Location of Evaluation	Time of Exposure And Effort Type	Heat Stress C°	TLV – TWA *
Packing Area	8.0 Middle Effort	16.3	26.7 C°
Cooling Hall	4.0 Middle Effort	4.4	29.4 C°

* Threshold Limit Values – Time Weighted Average According to Annex No. 9 Table 1 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table No. 3).

Figure (5):
Heat Stress Level
In Selecting and
Packing Station
“Strawberry and
Grapes “Soft Fruits”





3.2.1.3 Evaluation of Lighting Intensity Level:

Location of Evaluation	Accuracy Type	Lighting Intensity "Lux "	TLV " More Than " *
Packing Area	Detail Accuracy	592.0	538.0
Cooling Hall	Middle Accuracy	412.0	323.0

* Threshold Limit Values According to decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table No. 6)

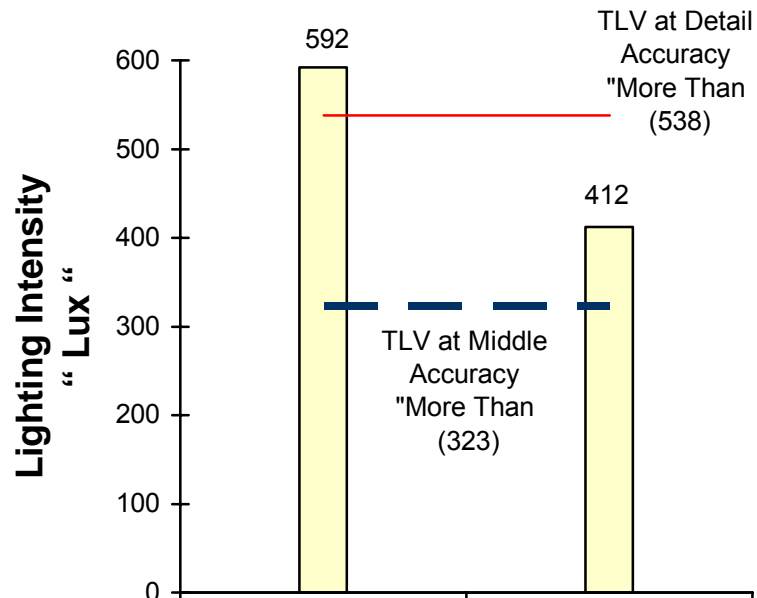


Figure (6):
Lighting Intensity Level In Selecting and Packing Station "Strawberry and Grapes "Soft Fruits"

	Packing Area	Cooling Hall
Lighting Intensity "Lux"	592	412
TLV "More Than" at Detail Accuracy	538	538
TLV "More Than" at Middle Accuracy	323	323



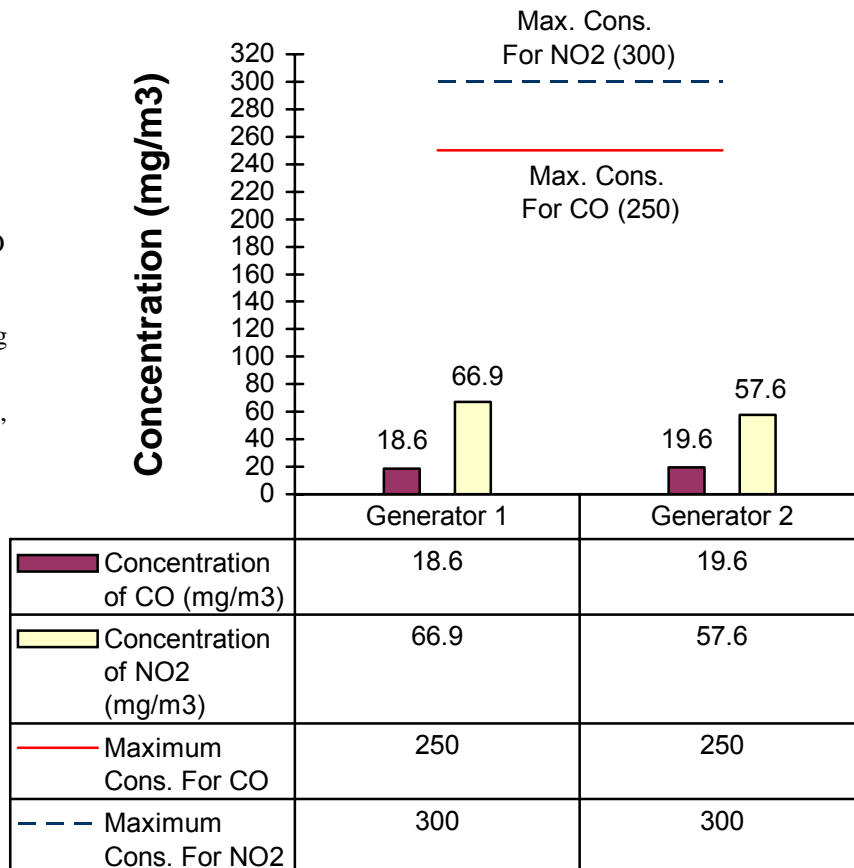
3.2.1.4 Evaluation of Air Contaminants Emitted from Electrical Generators at Oxygen Raito 3% “Solar Fuel “- “Soft Fruits:

Emitted Air Contaminant Type	Concentration Mg/m3 from Exhaust		Maximum Allowable Concentration *
	Generator 1	Generator 2	
TSP and Smoke	9.4	8.4	100.0
CO	18.6	19.6	250.0
SO2	8.3	4.3	1600.0
NO2	66.9	57.6	300.0
Burring Efficiency	89.1 %	89.8 %	Greater Than 85%

* Maximum Allowable Concentration of Air Pollutant In Fuel Burning Exhaust According to Annex No. 6 Table 5 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005.

Figure (7):

Concentration of CO & NO2 from electrical generators exhausts In Selecting and Packing Station “Strawberry and Grapes “Soft Fruits”



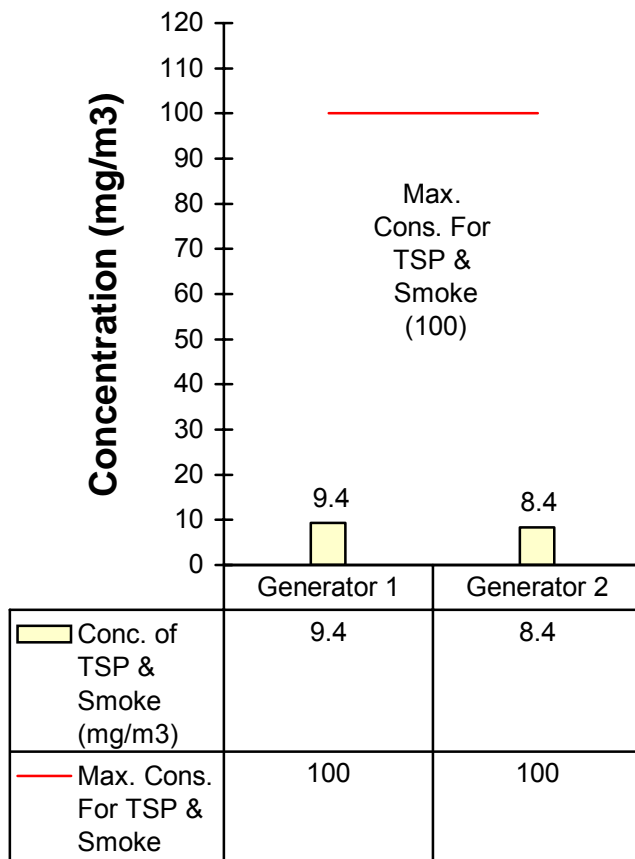


Figure (8):
Concentration of TSP & Smoke from electrical generators exhausts In Selecting and Packing Station “Strawberry and Grapes “Soft Fruits”

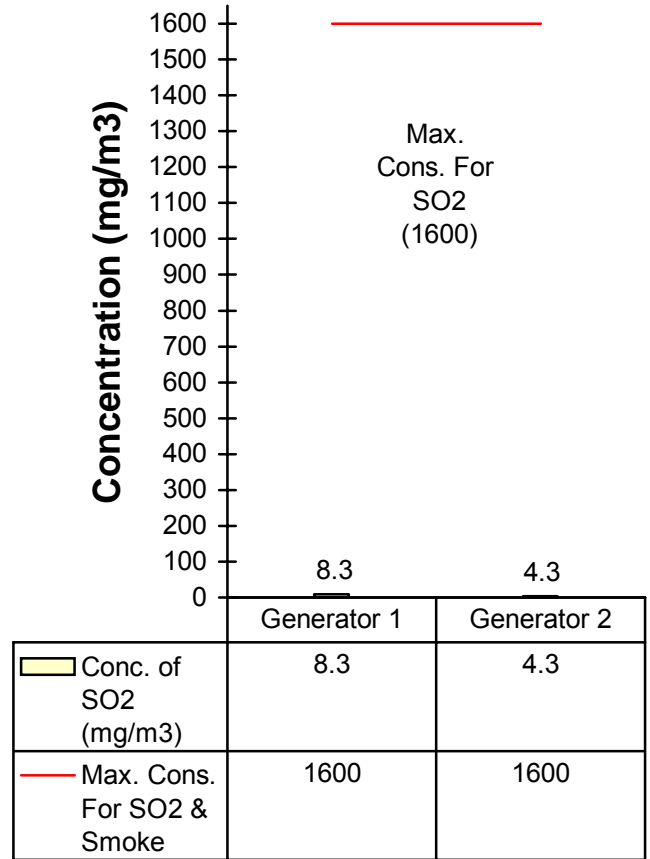


Figure (9):
Concentration of SO2 from electrical generators exhausts In Selecting and Packing Station “Strawberry and Grapes “Soft Fruits”

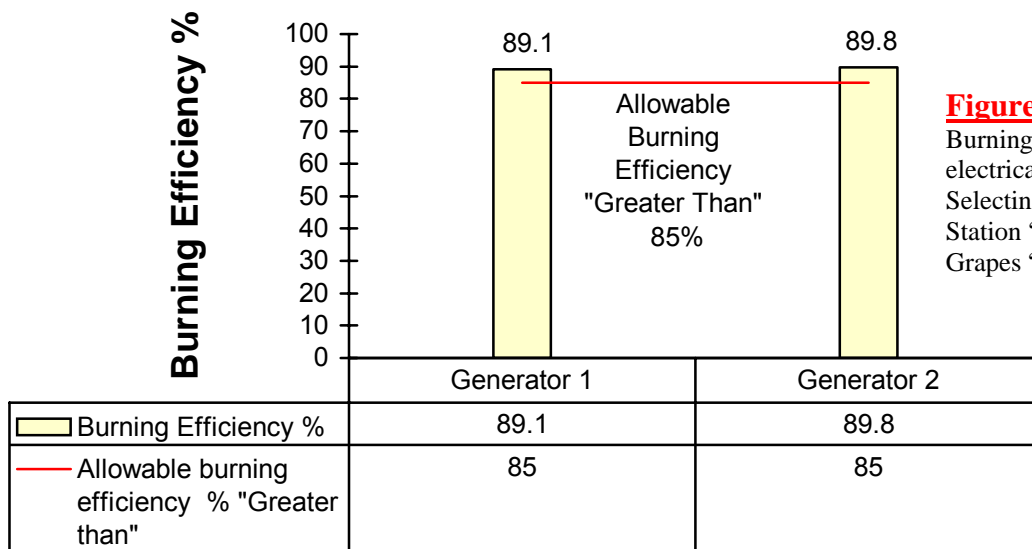


Figure (10):
Burning efficiency for electrical generators In Selecting and Packing Station “Strawberry and Grapes “Soft Fruits”



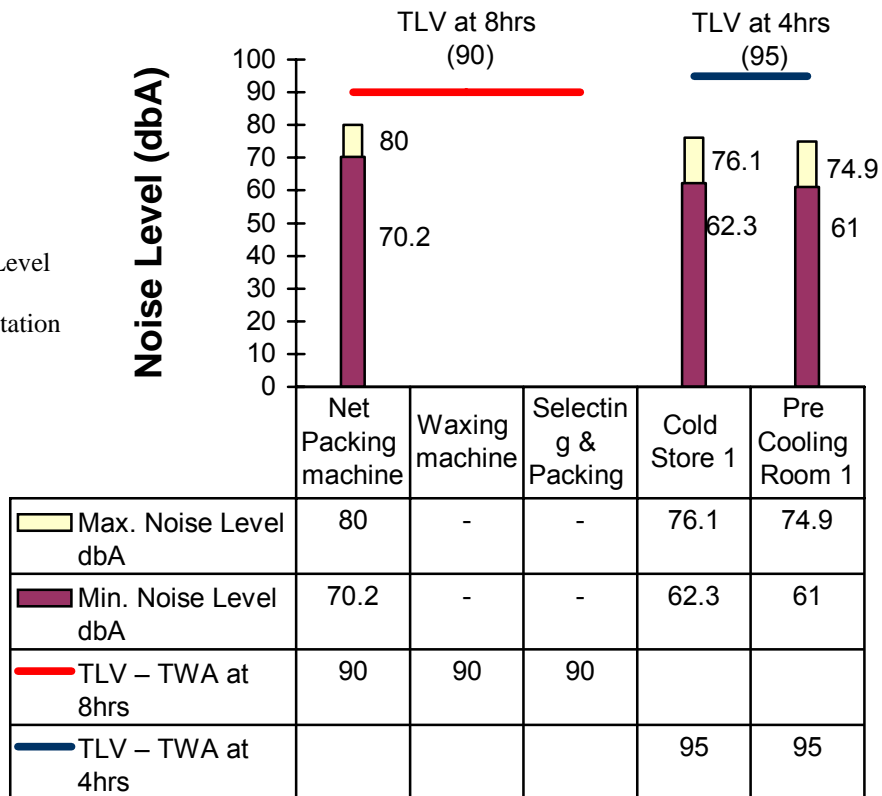
3.2.2 Selecting and Packing Citrus Station:

3.2.2.1 Evaluation of Noise Intensity Level In dbA :

Location of Evaluation	Time of Exposure “ Hours “	Noise Level “ dbA “	TLV – TWA *
Net Packing machine	8.0	70.2 – 80.0	90.0
Waxing machine	8.0	Stooped	90.0
Selecting & Packing Area	8.0	Stooped	90.0
Cold Store 1	4.0	62.3 – 76.1	95.0
Pre Cooling Room 1	4.0	61.0 – 74.9	95.0

* Threshold Limit Values – Time Weighted Average According to Annex No. 7 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table No. 1).

Figure (11):
Noise Intensity Level
In Selecting and
Packing Citrus Station



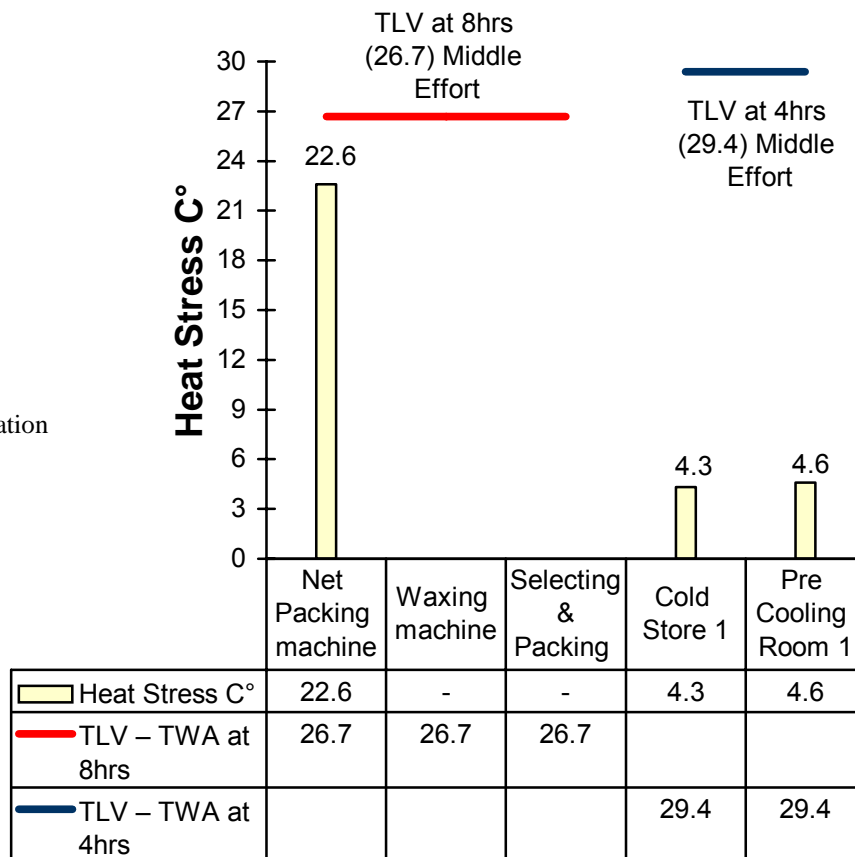


3.2.2.2 Evaluation of Heat Stress In C° from Wet Bulb Glob Thermometer:

Location of Evaluation	Time of Exposure And Effort Type	Heat Stress C°	TLV – TWA *
Net Packing machine	8.0 Middle Effort	22.6	26.7 C°
Waxing machine	8.0 Middle Effort	Stooped	26.7 C°
Selecting & Packing Area	8.0 Middle Effort	Stooped	26.7 C°
Cold Store 1	4.0 Middle Effort	4.3	29.4 C°
Pre Cooling Room 1	4.0 Middle Effort	4.6	29.4 C°

* Threshold Limit Values – Time Weighted Average According to Annex No. 9 Table 1 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 21 issued in 2003 by the Minister of Labor Force and Migration (table No. 3).

Figure (12):
Heat Stress Level
In Selecting and
Packing Citrus Station



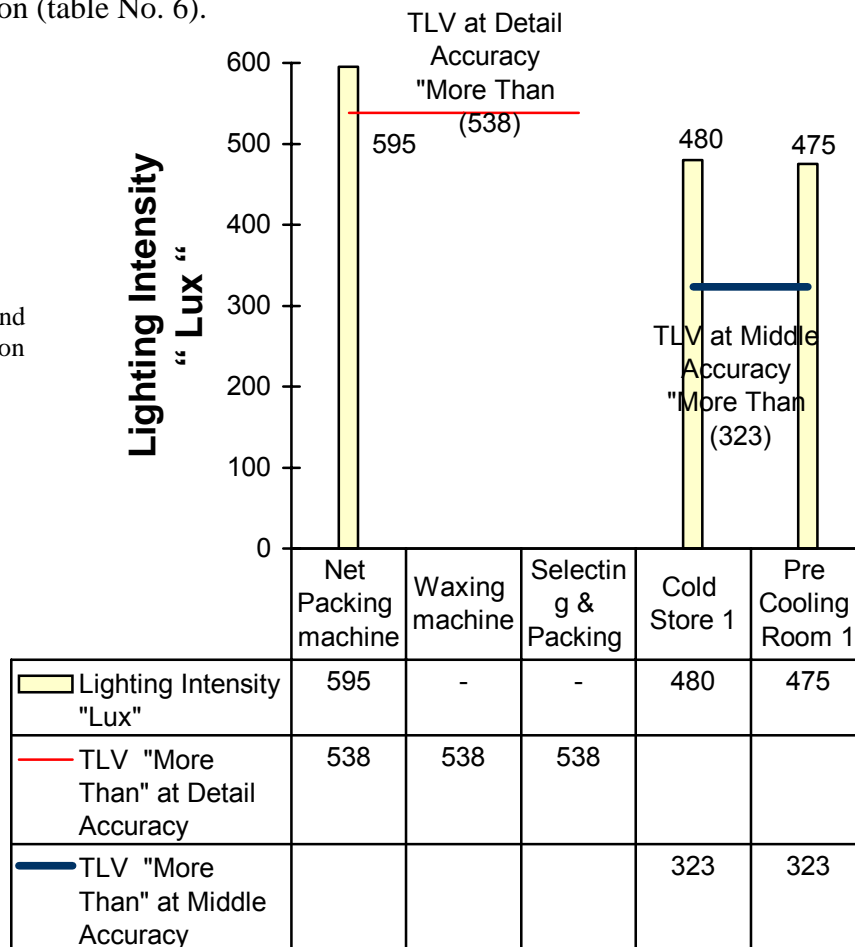


3.2.2.3 Evaluation of Lighting Intensity Level:

Location of Evaluation	Accuracy Type	Lighting Intensity " Lux "	TLV " More Than " *
Net Packing machine	Detail Accuracy	595.0	538.0
Waxing machine	Detail Accuracy	Stooped	538.0
Selecting & Packing Area	Detail Accuracy	Stooped	538.0
Cold Store 1	Middle Accuracy	480.0	323.0
Pre Cooling Room 1	Middle Accuracy	475.0	323.0

* Threshold Limit Values According to decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table No. 6).

Figure (13):
Lighting Intensity Level In Selecting and Packing Citrus Station





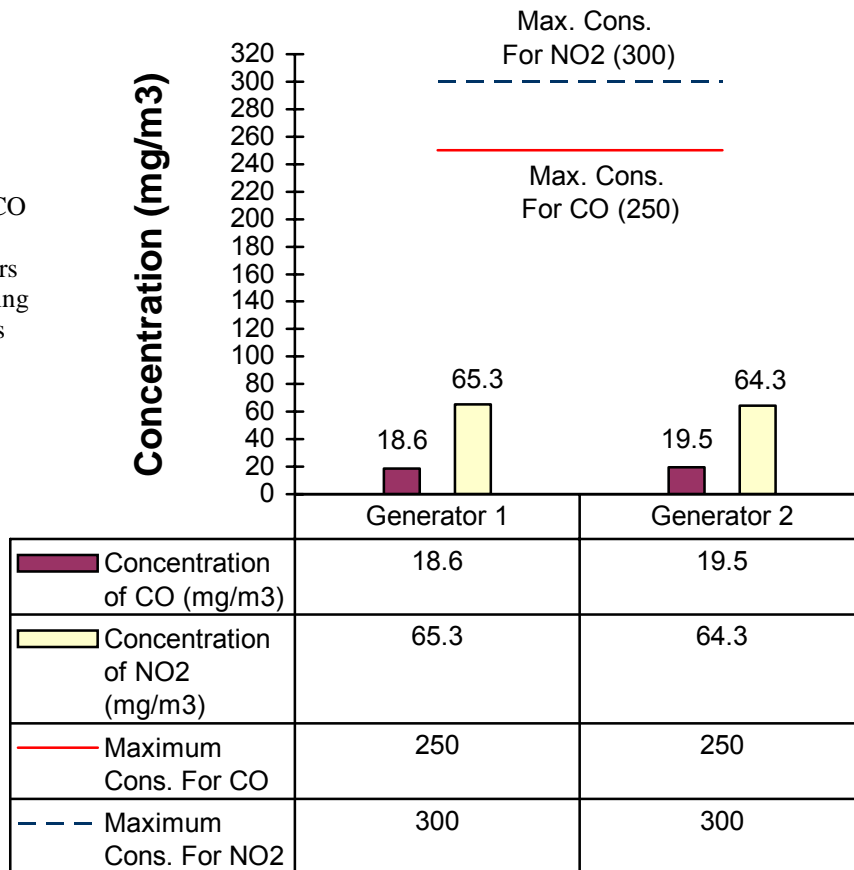
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3.2.2.4 Evaluation of Air Contaminants Emitted from Electrical Generators at Oxygen Raito 3% “Solar Fuel “-Citrus Station:

Emitted Air Contaminant Type	Concentration Mg/m3 from Exhaust		Maximum Allowable Concentration *
	Generator 1	Generator 2	
TSP and Smoke	8.1	7.3	100.0
CO	18.6	19.5	250.0
SO2	6.2	5.7	1600.0
NO2	65.3	64.3	300.0
Burring Efficiency	91.0 %	90.1 %	Greater Than 85%

* Maximum Allowable Concentration of Air Pollutant In Fuel Burning Exhaust According to Annex No. 6 Table 5 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005.

Figure (14):
Concentration of CO & NO2 from electrical generators exhausts In Selecting and Packing Citrus Station



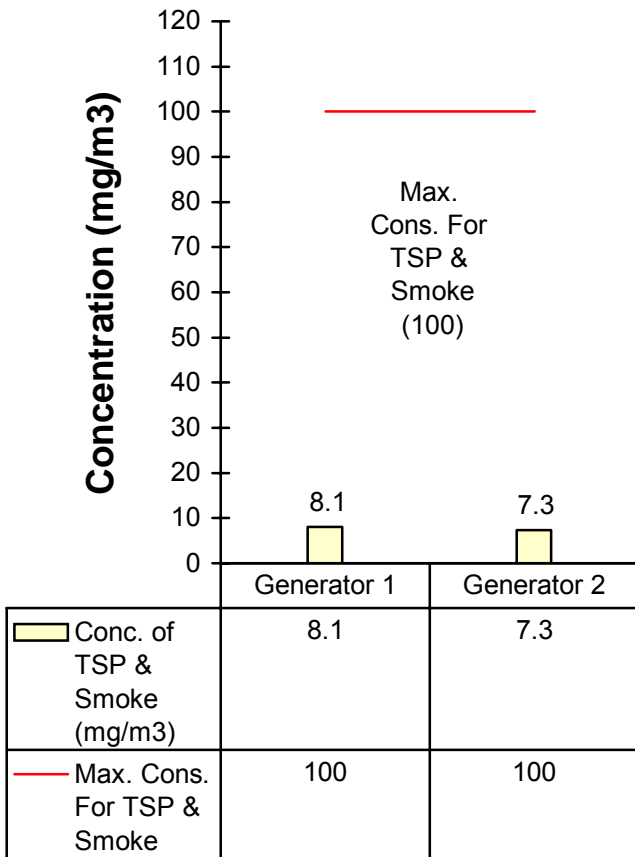


Figure (15):
Concentration of TSP and Smoke from electrical generators exhausts In Selecting and Packing Citrus Station

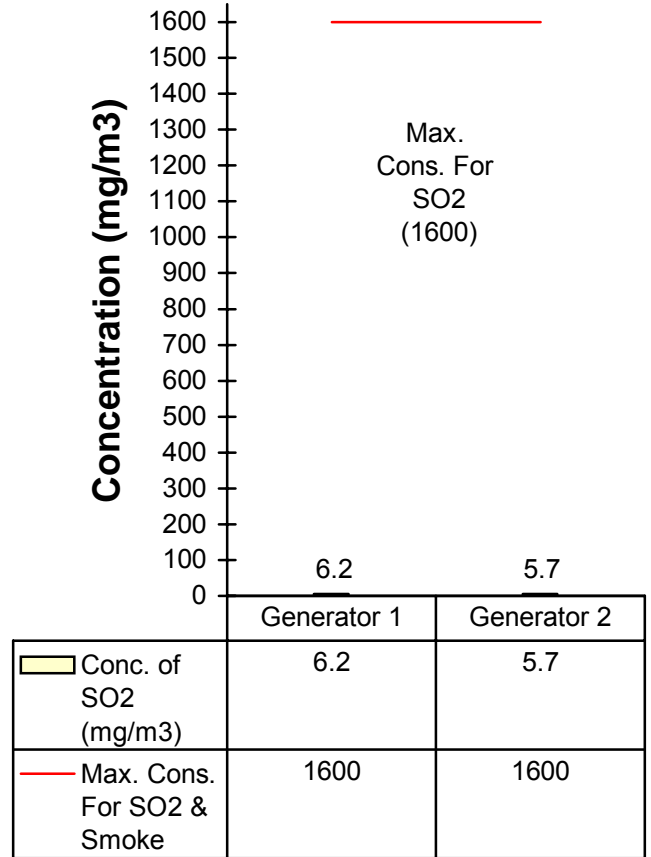
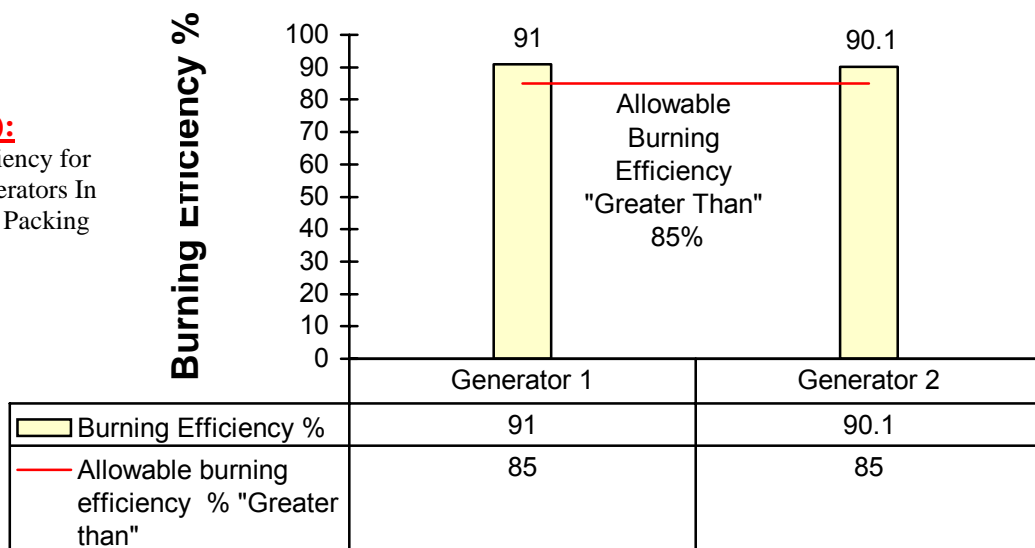


Figure (16):
Concentration of SO2 from electrical generators exhausts In Selecting and Packing Citrus Station

Figure (17):
Burning efficiency for electrical generators In Selecting and Packing Citrus Station





3.2.3 Herbs Selecting and Packing Station:

3.2.3.1 Evaluation of Noise Intensity Level In dbA:

Location of Evaluation	Time of Exposure “ Hours “	Noise Level “ dbA “	TLV – TWA *
Administration Room	8.0	62.1 – 71.4	90.0
Maintenance Room	8.0	63.1 – 74.9	90.0
Refrigerator Room	8.0	62.9 – 71.8	90.0
Packing Hall	8.0	64.3 – 79.6	90.0
Final Cooling Room 1	4.0	61.1 – 67.3	95.0
Raw Cooling Room 2	4.0	59.2 – 67.1	95.0
Rehan Packing Hall 2	8.0	63.2 – 77.1	90.0
Rehan Cooling Room 3	4.0	58.2 – 70.6	95.0

* Threshold Limit Values – Time Weighted Average According to Annex No. 7 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table No. 1).

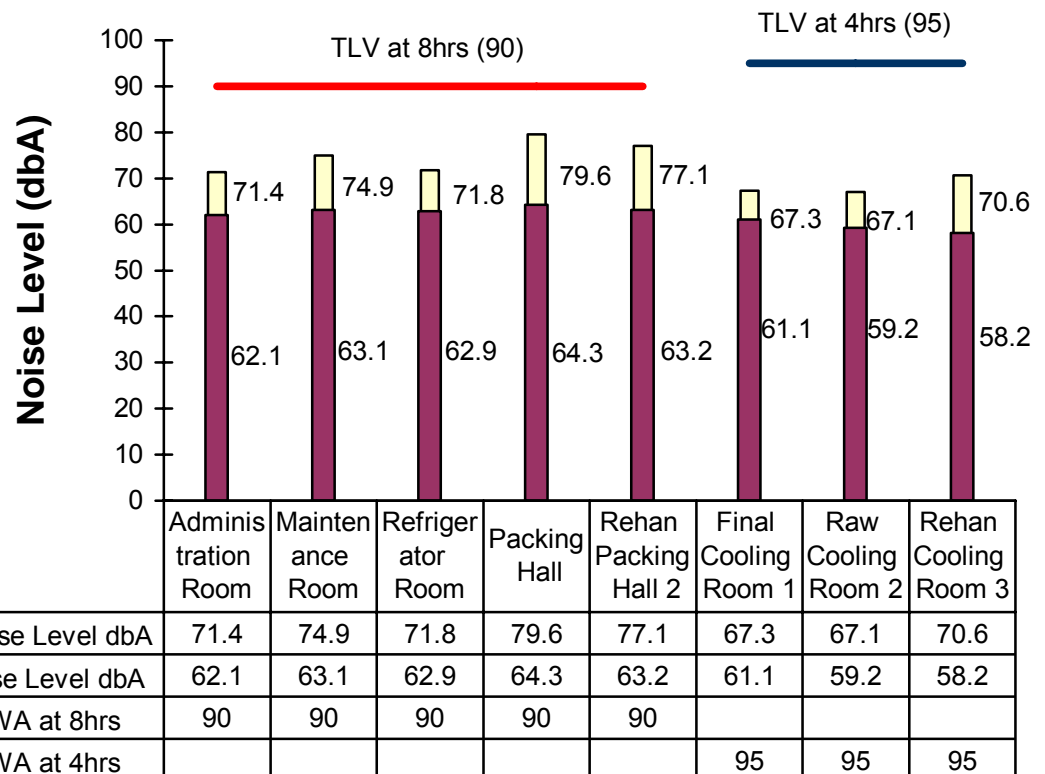


Figure (18):
Noise Intensity Level
In Herbs Selecting
and Packing Station



3.2.3.2 Evaluation of Heat Stress in C° from Wet Bulb Glob Thermometer:

Location of Evaluation	Time of Exposure And Effort Type	Heat Stress C°	TLV – TWA *
Administration Room	8.0 Middle Effort	23.4	26.7 C°
Maintenance Room	8.0 Middle Effort	23.2	26.7 C°
Refrigerator Room	8.0 Middle Effort	15.1	26.7 C°
Packing Hall	8.0 Middle Effort	21.6	26.7 C°
Final Cooling Room 1	4.0 Middle Effort	4.1	29.4 C°
Raw Cooling Room 2	4.0 Middle Effort	4.1	29.4 C°
Rehan Packing Hall 2	8.0 Middle Effort	18.8	26.7 C°
Rehan Cooling Room 3	4.0 Middle Effort	8.9	29.4 C°

* Threshold Limit Values – Time Weighted Average According to Annex No. 9 Table 1 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table No. 3).

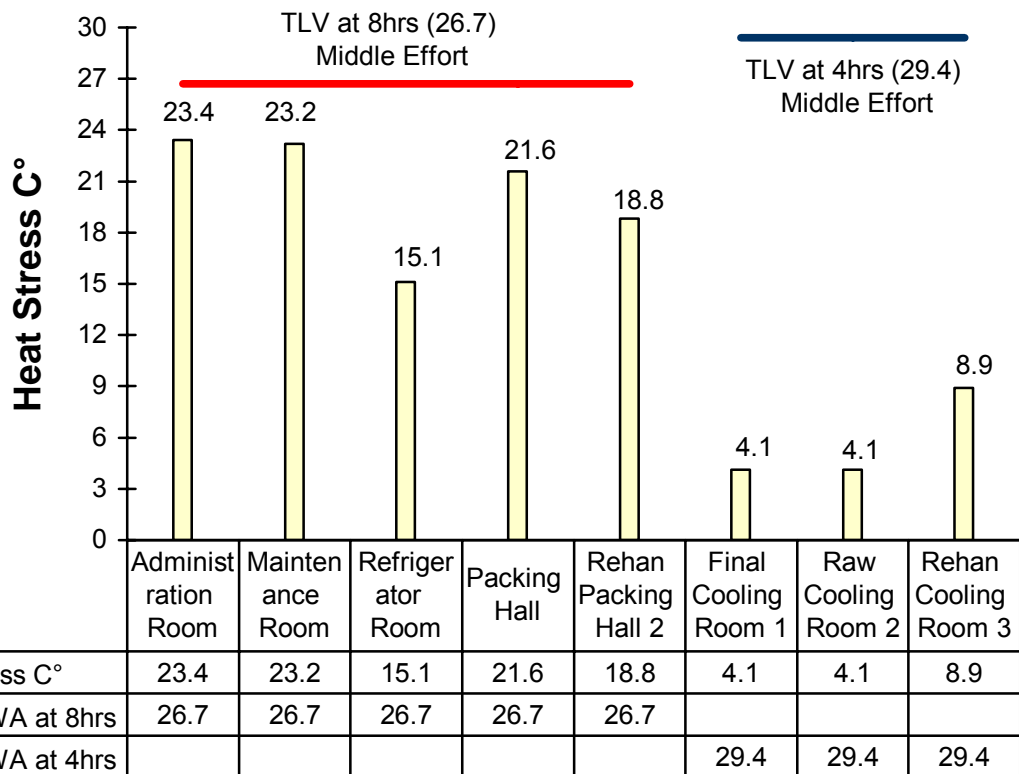


Figure (19):
Heat Stress Level
In Herbs Selecting
and Packing Station

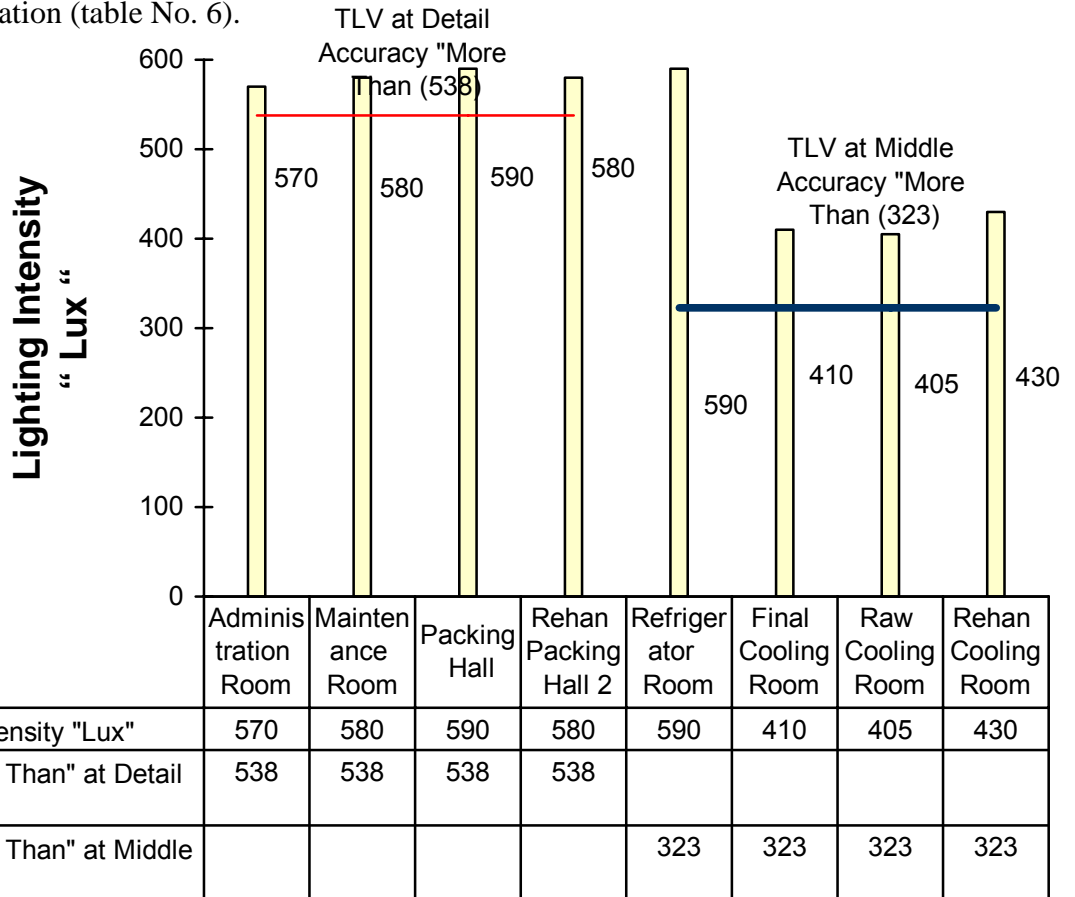


3.2.3.3 Evaluation of Lighting Intensity Level :

Location of Evaluation	Accuracy Type	Lighting Intensity " Lux "	TLV " More Than " *
Administration Room	Detail Accuracy	570.0	538.0
Maintenance Room	Detail Accuracy	580.0	538.0
Refrigerator Room	Middle Accuracy	590.0	323.0
Packing Hall	Detail Accuracy	590.0	538.0
Final Cooling Room 1	Middle Accuracy	410.0	323.0
Raw Cooling Room 2	Middle Accuracy	405.0	323.0
Rehan Packing Hall 2	Detail Accuracy	580.0	538.0
Rehan Cooling Room 3	Middle Accuracy	430.0	323.0

* Threshold Limit Values According to decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table No. 6).

Figure (20):
Lighting Intensity Level in Herbs Selecting and Packing



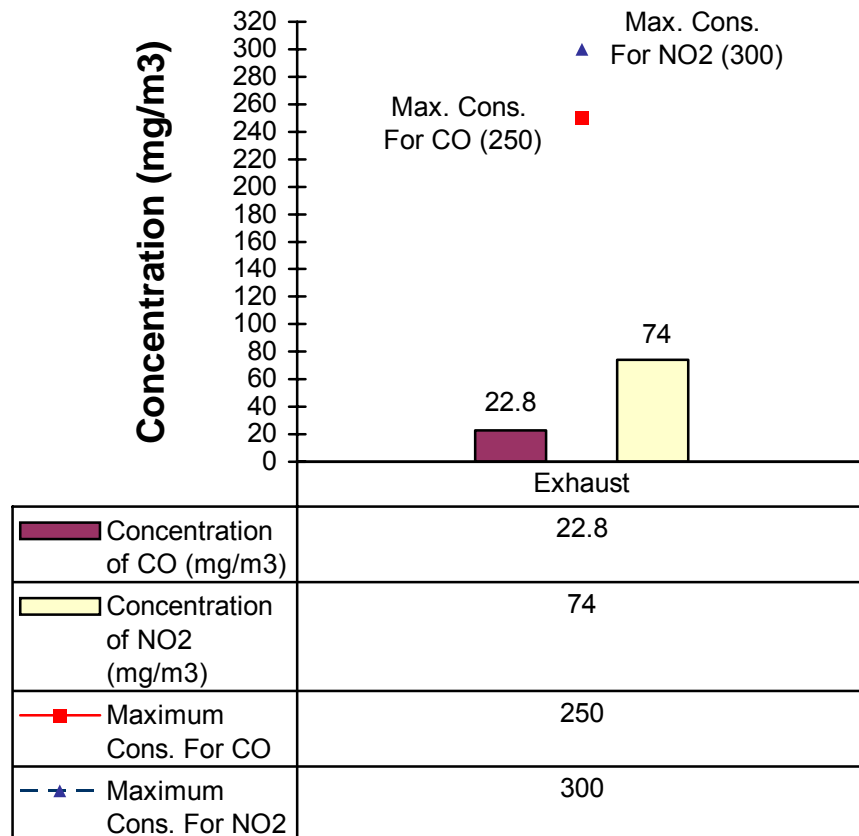


3.2.3.4 Evaluation of Air Contaminants Emitted from Electrical Generators at Oxygen Raito 3% “Solar Fuel “- Irrigation Station No. 4, 5.:

Emitted Air Contaminant Type	Concentration Mg/m3 from Exhaust	Maximum Allowable Concentration *
TSP and Smoke	8.9	100.0
CO	22.8	250.0
SO2	7.3	1600.0
NO2	74.0	300.0
Burring Efficiency	87.6 %	Greater Than 85%

* Maximum Allowable Concentration of Air Pollutant In Fuel Burning Exhaust According to Annex No. 6 Table 5 from executive regulation of Law No. 4 for 1994 and Its adjustment No. 1741 for 2005.

Figure (21):
Concentration of CO & NO2 exhausts In Herbs Selecting and Packing



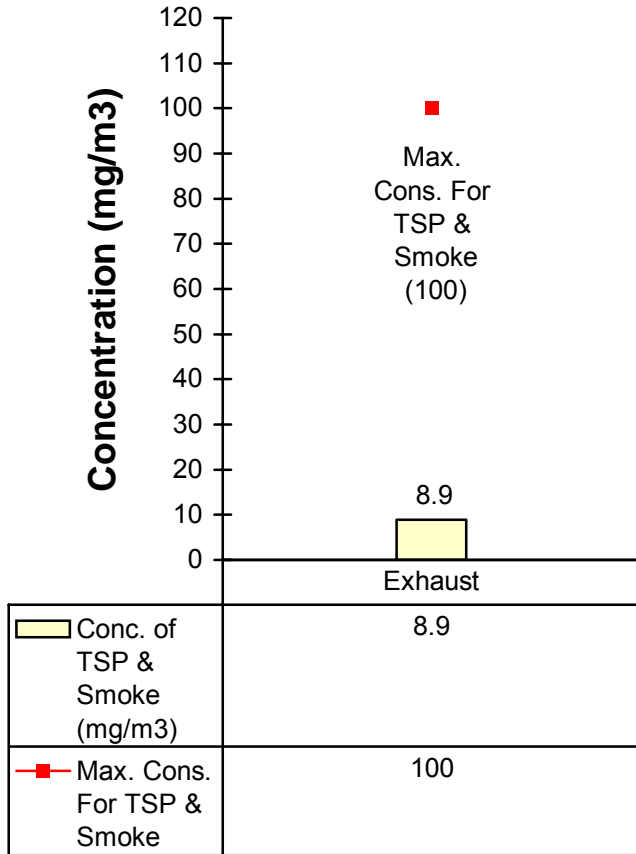


Figure (22):
Concentration of TSP and Smoke from exhausts In Herbs Selecting and Packing

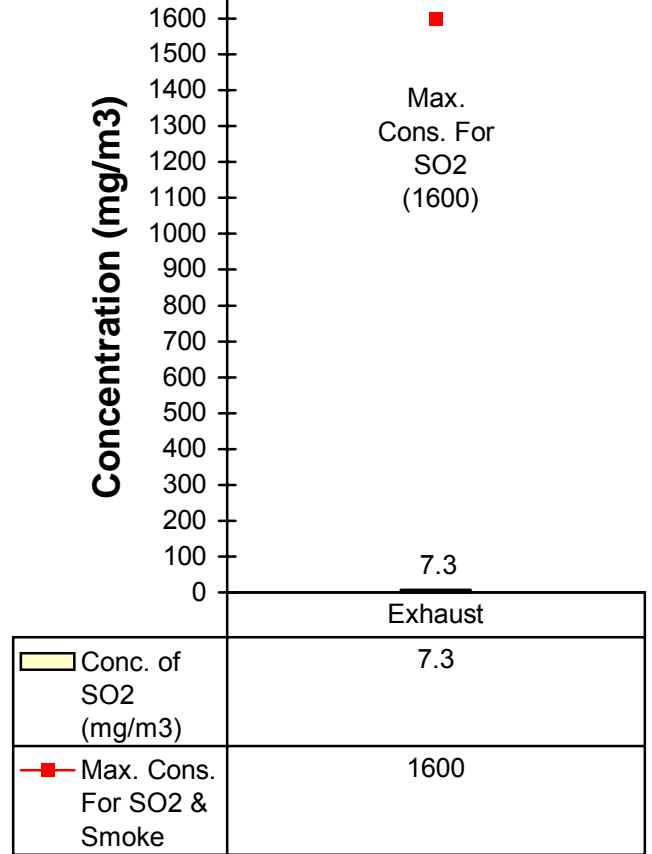
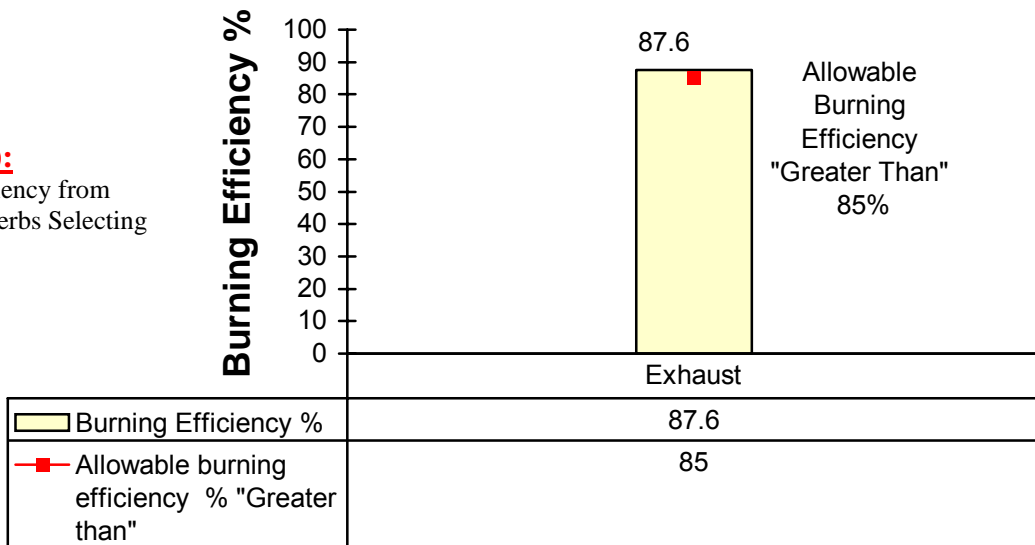


Figure (23):
Concentration of SO2 from exhausts In Herbs Selecting and Packing

Figure (24):
Burning efficiency from exhausts In Herbs Selecting and Packing





3.2.4 Medical Department and Laboratories:

3.2.4.1 Evaluation of Lighting Intensity Level:

Location of Evaluation	Accuracy Type	Lighting Intensity " Lux "	TLV " More Than " *
Clinic Room	Detail Accuracy	560.0	538.0
Chemistry Lab.	Detail Accuracy	580.0	538.0
Microbiological Lab.	Detail Accuracy	555.0	538.0
Lecture Room	Detail Accuracy	650.0	538.0
Citrus Station Lab.	Detail Accuracy	560.0	538.0

* Threshold Limit Values According to decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table No. 6).

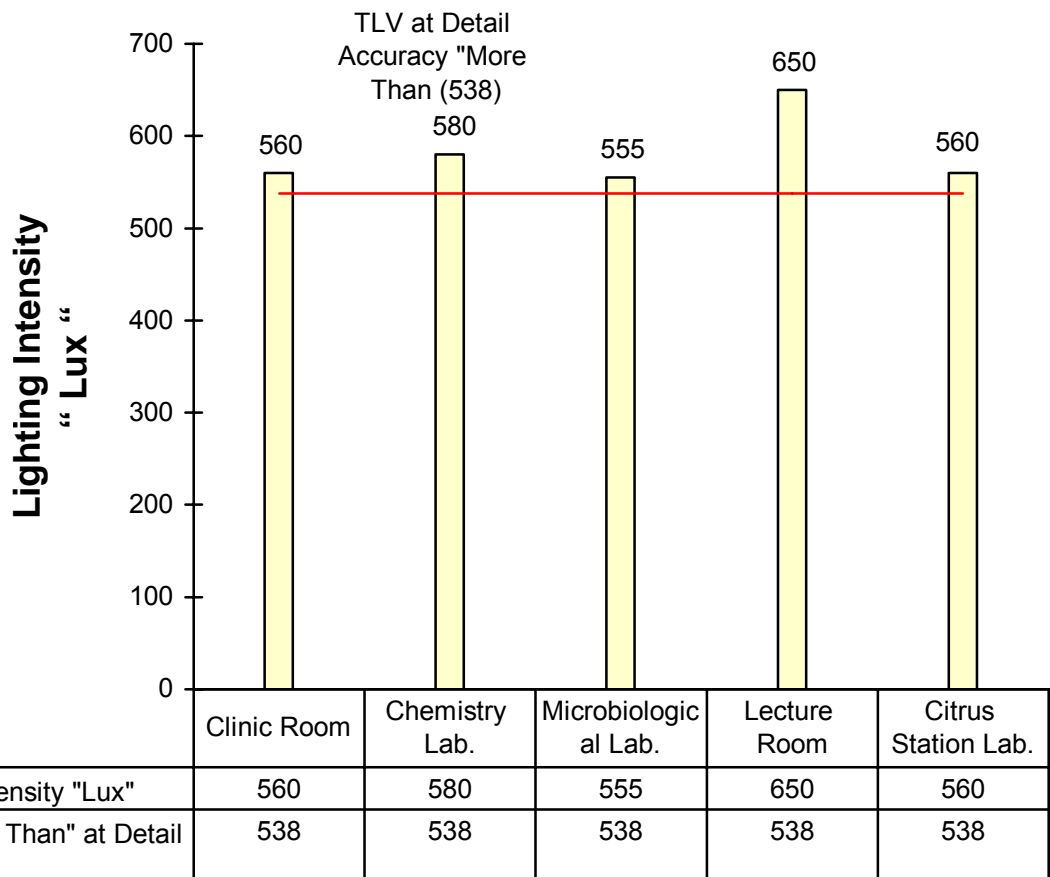


Figure (25):
Lighting Intensity Level in Medical Department and Laboratories



3.2.4.2 Evaluation of Acetic Acid Concentration in Mg/M3:

TLV-TWA for Acetic Acid = 25.0 Mg/M3

Threshold Limit Values – Time Weighted Average According to Annex No. 8 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table attached to article No. 34).

Concentration = 0.98 Mg/M3

The concentration is lower than the TLV-TWA of Acetic Acid.

3.2.5 Workshops:

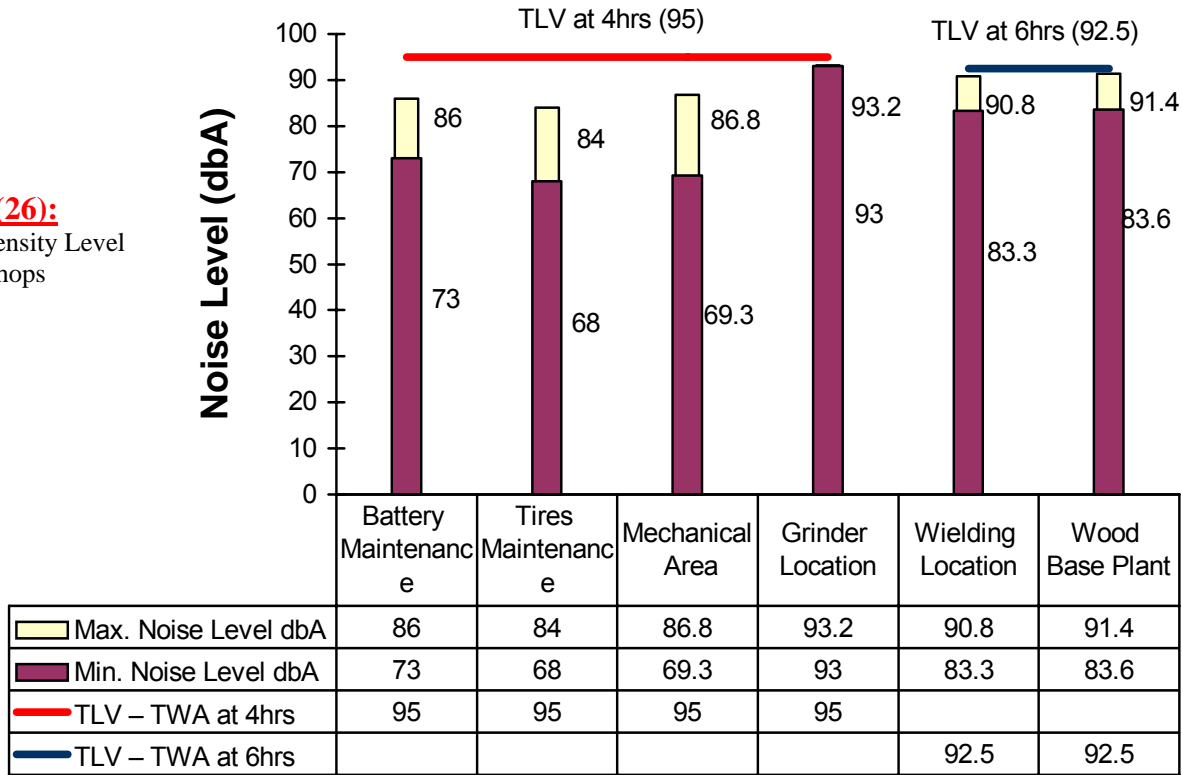
3.2.5.1 Evaluation of Noise Intensity Level In dbA

Location of Evaluation	Time of Exposure “ Hours “	Noise Level “ dbA “	TLV-TWA *
Mechanical Workshop:			
• Battery Maintenance Area	4.0	73.0 – 86.0	95.0
• Tires Maintenance Area	4.0	68.0 – 84.0	95.0
• Mechanical Area	4.0	69.3- 86.8	95.0
Welding Workshop:			
• Grinder Location	4.0	93.2	95.0
• Welding Location	6.0	83.3 – 90.8	92.5
Carpenter Workshop:			
• Wood Base Plant	6.0	83.6 – 91.4	92.5

* Threshold Limit Values – Time Weighted Average According to Annex No. 7 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table No. 1).



Figure (26):
Noise Intensity Level
In Workshops



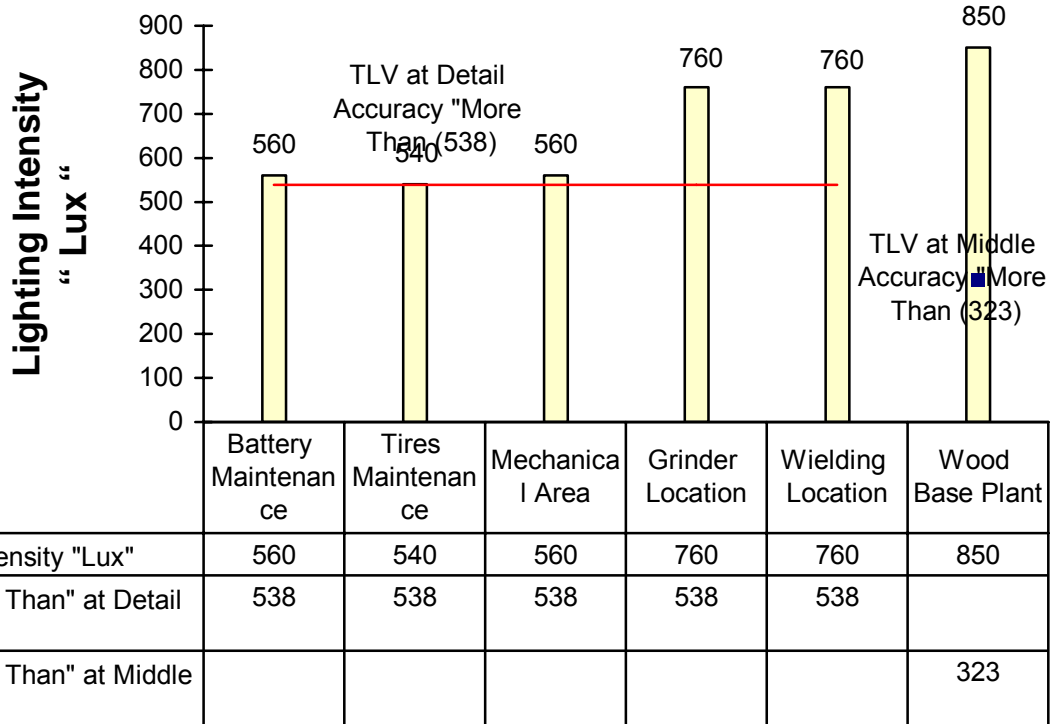
3.2.5.2 Evaluation of Lighting Intensity Level:

Location of Evaluation	Accuracy Type	Lighting Intensity “ Lux “	TLV “More Than”**
Mechanical Workshop: • Battery Maintenance Area • Tires Maintenance Area • Mechanical Area	Detail Accuracy	560.0 540.0 560.0	538.0
Welding Workshop: • Grinder Location • Welding Location	Detail Accuracy	760.0 760.0	538.0
Carpenter Workshop: • Wood Base Plant	Middle Accuracy	850.0	323.0

* Threshold Limit Values are according to decree No. 211 in 2003 issued by the Minister of Labor Force and Migration (table No. 6).



Figure (27):
Lighting Intensity
Level in Workshops



3.2.5.3 Evaluation of Air Contaminants at the Work Environment in Mg / M3:

Location of Evaluation	Concentration Mg / M3			
	Welding Fume	TSP	Oil Mineral Mist	H2SO4 Fume
Mechanical Workshop:				
• Battery Maintenance Area	-	-	-	0.18
• Tires Maintenance Area	-	-	-	-
• Mechanical Area	-	-	1.62	-
Welding Workshop:				
• Grinder Location	-	1.23	-	-
• Welding Location	1.12	-	-	-
Carpenter Workshop:				
• Wood Base Plant	-	1.42	-	-
TLV-TWA *	5.0	10.0	5.0	1.0

* Threshold Limit Values – Time Weighted Average According to Annex No. 8 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table attached to article No. 34).



Figure (28):
Concentration of TSP In Workshops

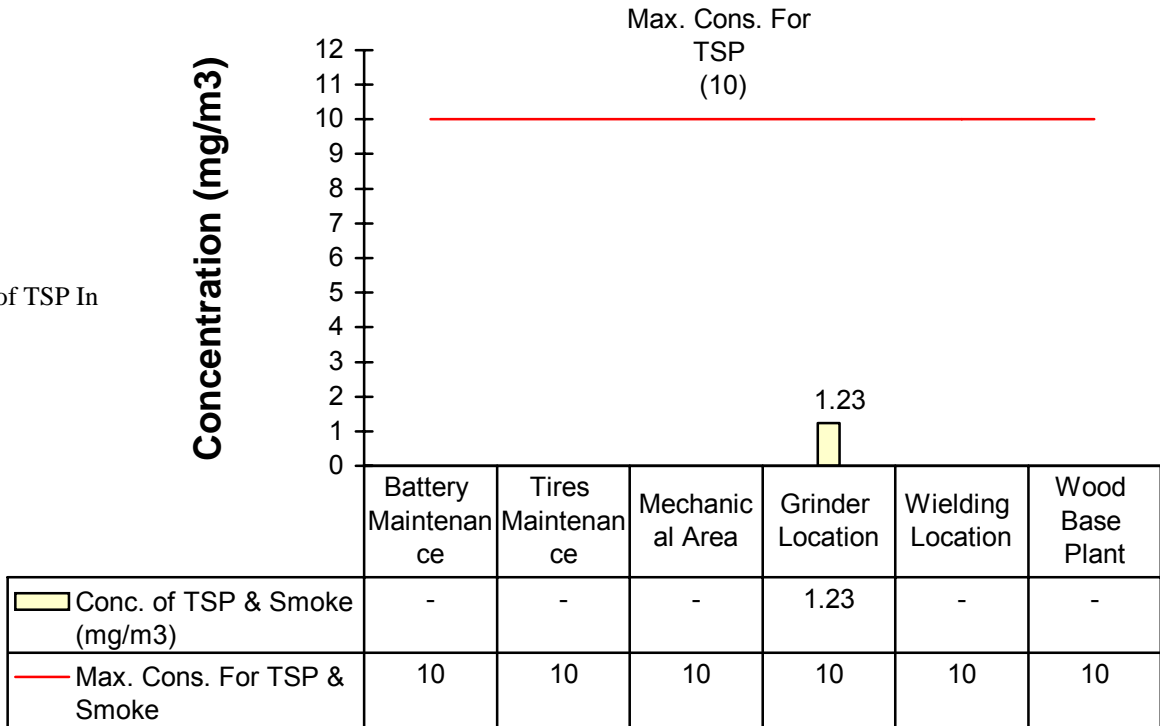


Figure (29):
Concentration of Welding Fume In Workshops

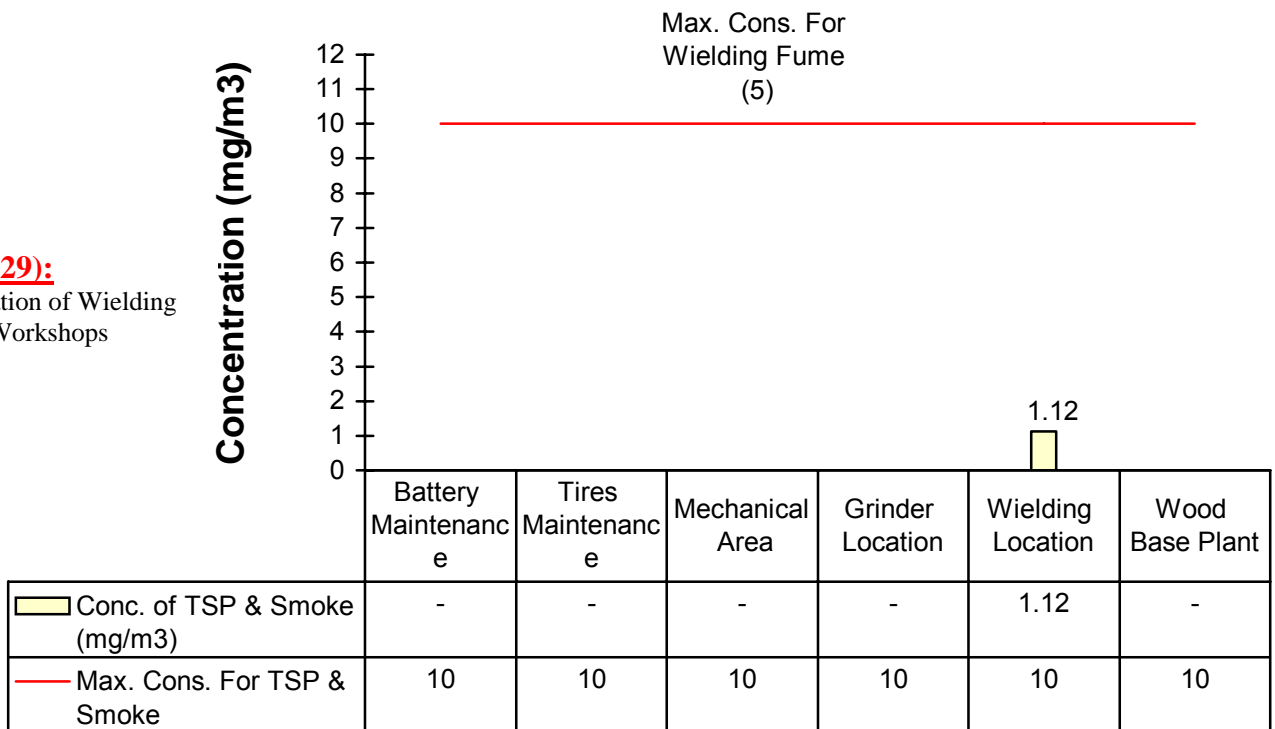




Figure (30):
Concentration of Oil Mineral Mist In Workshops

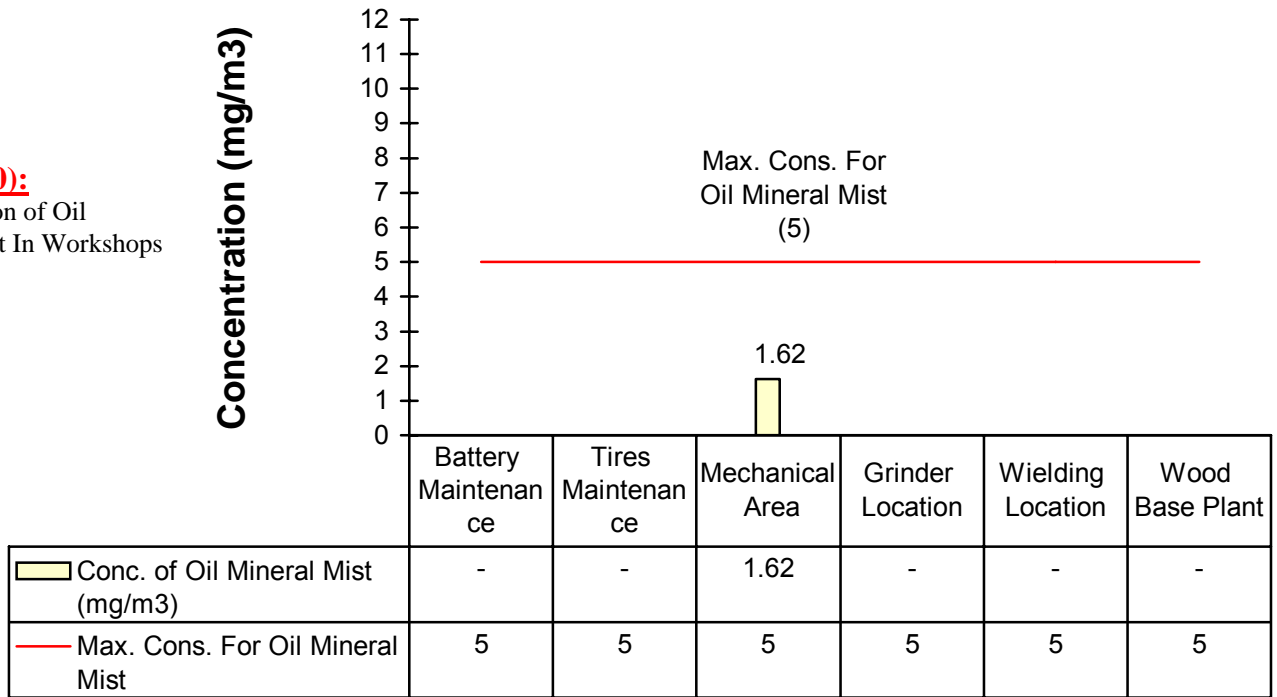
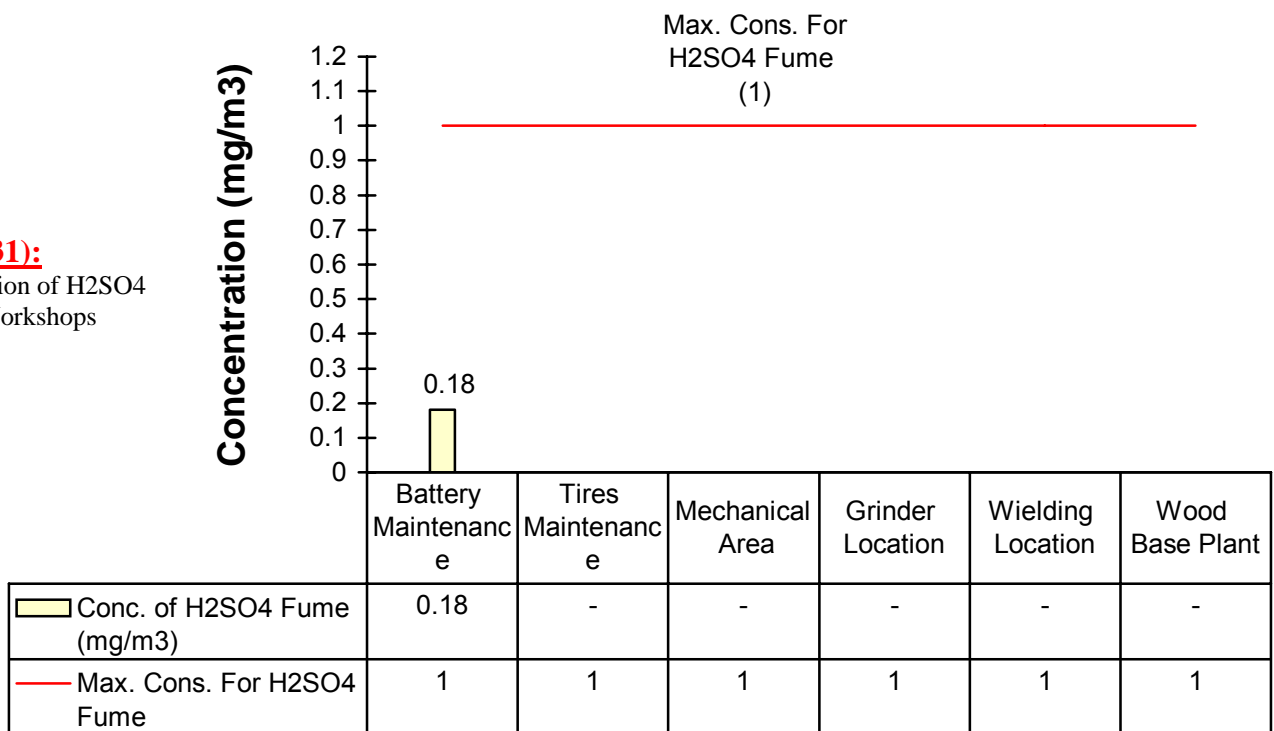


Figure (31):
Concentration of H2SO4 Fume In Workshops





3.2.6 Pesticide Stores :

3.2.6.1 Evaluation of Exposure to Phospho Organic Group, Carbaryl Group and Mineral Oil Mist in Work Environment Mg / M3:

Location of Evaluation	Concentration Mg / M3		
	Phospho -Organic	Carbaryl	Mineral Oil Mist
Main Pesticide Store	1.71	0.72	-
West Pesticide Store	-	-	0.72
Pesticide Empty Pack Store	1.84	0.88	-
TLV-TWA *	10.0	5.0	5.0

* Threshold Limit Values – Time Weighted Average According to Annex No. 8 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table attached to article No. 34).

Figure (32):
Concentration of Oil Mineral Mist In Pesticide Stores

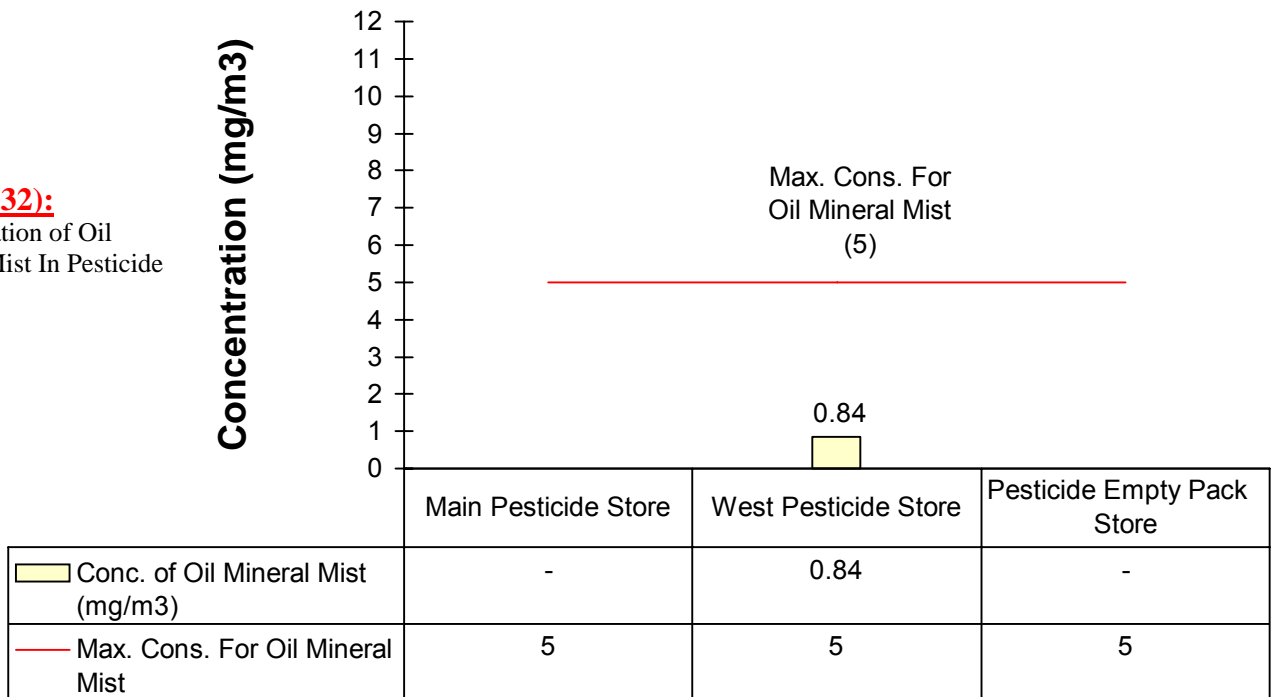




Figure (33):
Concentration of Carbaryl
In Pesticide Stores

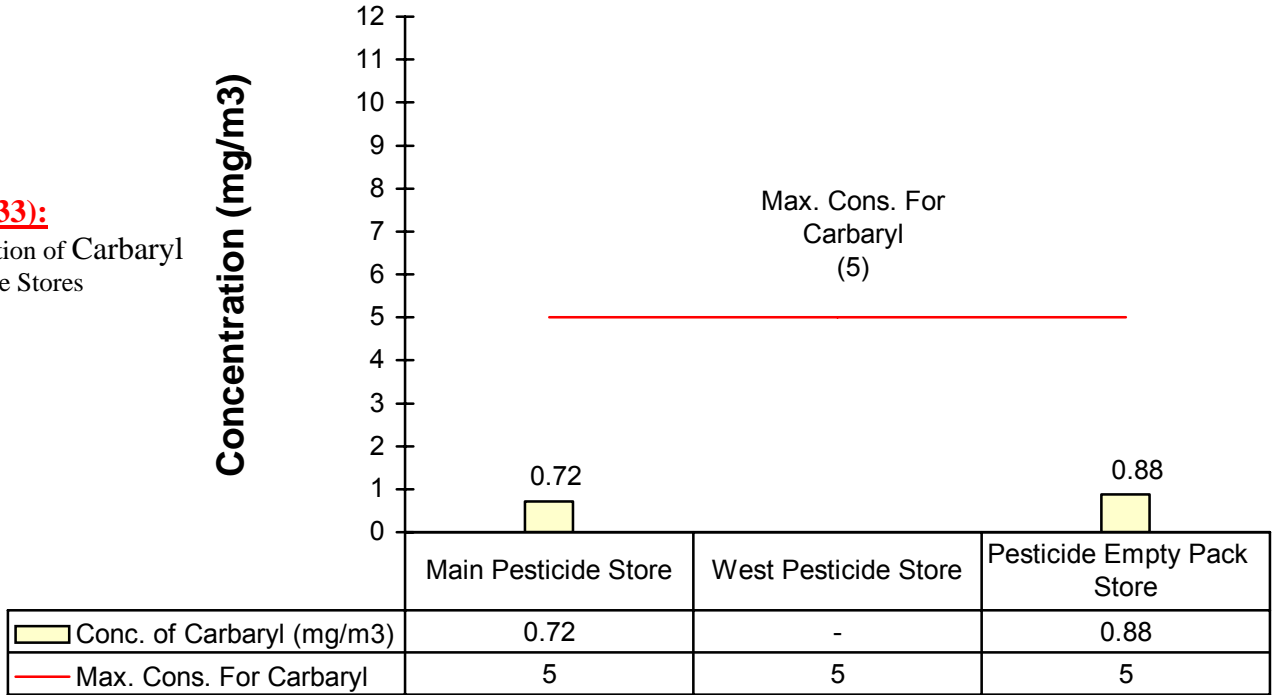
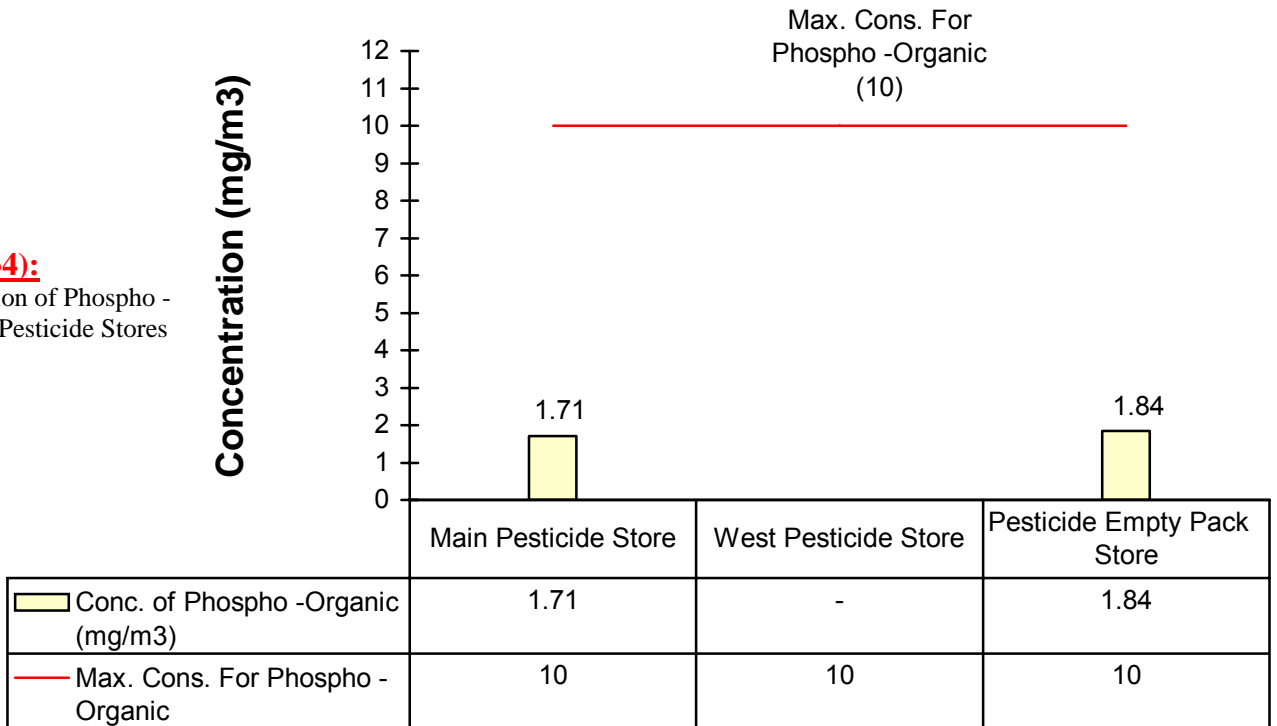


Figure (34):
Concentration of Phospho -
Organic In Pesticide Stores





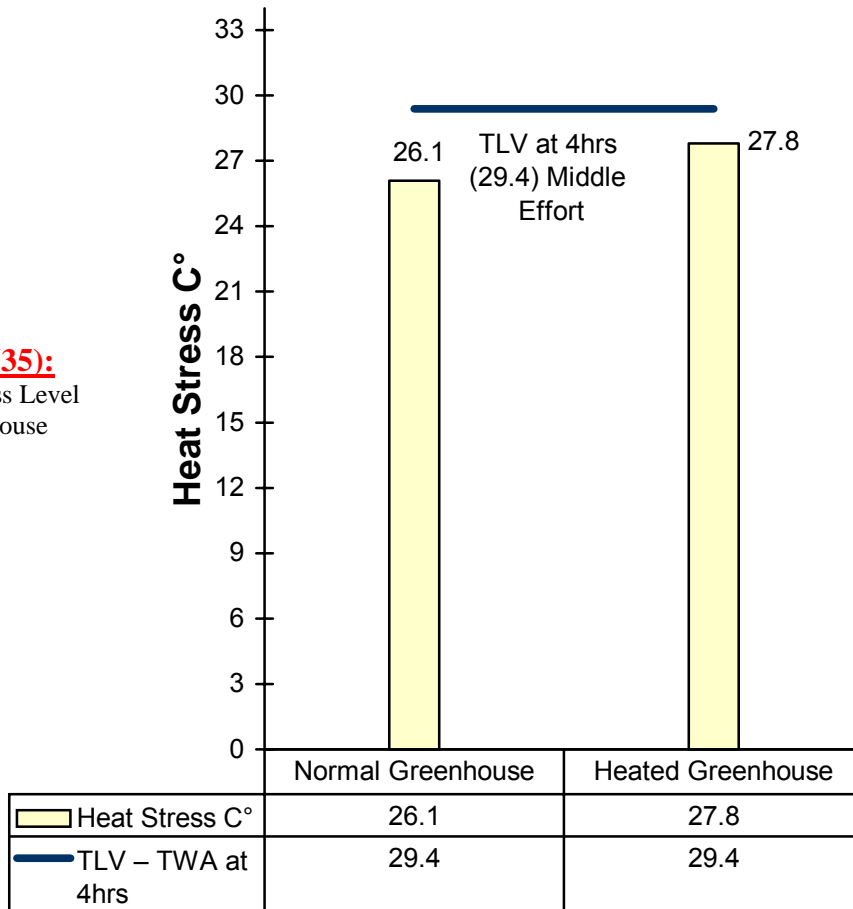
3.2.7 Greenhouse :

3.2.7 Evaluation of Heat Stress In C° from Wet Bulb Glob Thermometer:

Location of Evaluation	Time of Exposure And Effort Type	Heat Stress C°	TLV – TWA *
Normal Greenhouse	4.0 Middle Effort	26.1	29.4 C°
Heated Greenhouse	4.0 Middle Effort	27.8	29.4 C°

* Threshold Limit Values – Time Weighted Average According to Annex No. 9 Table 1 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table No. 3).

Figure (35):
Heat Stress Level
In Greenhouse





Conclusion:

- A)** By comparing the levels of noise intensity resulted from our testing to annex No 7 table “2” from the adjustment of Executive regulation for Law No 4 for 1994, decree 1741 for 2005 and the Minister of Labors Force and Migration decision No 211 for 2003 (table No 1). The levels of Noise Intensity are less than the maximum permissible levels.
- B)** By comparing the Concentration of Total Suspended Particulates (TSP) resulted from our testing to annex No 8 from the adjustment of Executive regulation for Law No 4 for 1994, decree 1741 for 2005 and the Minister of Labors Force and Migration decision No 211 for 2003. The Concentrations of Suspended Particulates are less than the maximum permissible levels.
- C)** By comparing the Concentration of Nitrogen Oxides (Nox) and Sulfur Oxides (Sox) resulted from our testing in to Annex No. 5 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005. The Concentrations of Nox & Sox are less than the maximum permissible levels.
- D)** By comparing the Concentration of Carbon monoxide resulted from our testing to Annex No. 5 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005. The Concentrations of Carbon monoxide (CO) are less than the maximum permissible levels.
- E)** By comparing the levels of Heat Stress resulted from our testing to Annex No. 9 Table 1 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table No. 3).The levels of Heat Stress are less than the maximum permissible levels.
- F)** By comparing the levels of Lighting Intensity resulted from our testing to decree No. 211 Issued in 2003 by the Minister of Labor Force and Migration (table No. 6). The levels of Lighting Intensity are more than the minimum permissible levels,
- G)** By comparing the Concentration of Acetic Acid resulted from our testing to Annex No. 8 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table attached to article No. 34).The Concentrations of Acetic Acid is less than the maximum permissible levels.



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- H)** By comparing the Concentration of Welding Fume resulted from our testing to Annex No. 8 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table attached to article No. 34). The Concentrations of Welding Fume is less than the maximum permissible levels.
- I)** By comparing the Concentration of Oil Mineral Mist resulted from our testing to Annex No. 8 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table attached to article No. 34). The Concentrations of Oil Mineral Mist is less than the maximum permissible levels
- J)** By comparing the Concentration of H₂SO₄ Fume resulted from our testing to Annex No. 8 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table attached to article No. 34). The Concentrations of H₂SO₄ Fume is less than the maximum permissible levels
- K)** By comparing the Concentration of Phospho -Organic resulted from our testing to Annex No. 8 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table attached to article No. 34). The Concentrations of Phospho -Organic is less than the maximum permissible levels
- L)** By comparing the Concentration of Carbaryl resulted from our testing to Annex No. 8 from executive regulation of Law No. 4 for 1994 and its adjustment No. 1741 for 2005 and decree No. 211 issued in 2003 by the Minister of Labor Force and Migration (table attached to article No. 34). The Concentrations of Carbaryl is less than the maximum permissible levels



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PART

(II)

Evaluation of Air Pollutants



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Evaluation of Air Pollutants Emission Report

Client	:	
Equipment to be tested	:	Model Forkleft Daewoo D3os
No. of Equipment	:	8 “ Local “
Type of fuel	:	Solar
Place of Test	:	Farm Location
Date of test	:	5 / 6 / 2007

Test Results:

Type of air pollutants	Emission levels or concentration	Maximum permissible limits
Carbon Monoxide (CO)	1.38%	2.5% (in volume) at speed of (600-900) R.P.M.
Unburned Hydrocarbons (HC)	118.0 ppm	600 ppm at speed of (600-900) R.P.M.
Smokes	1.25 %	30% degree of opacity

Conclusion:

On the basis of our testing according to executive regulation of Law No. 4 for 1994 and Its adjustment No. 1741 for 2005 – the level of air pollutants emitted less than the maximum permissible level.



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Evaluation of Air Pollutants Emission Report

Client	:	
Equipment to be tested	:	Model Forkleft Daewoo D3os
No. of Equipment	:	7 “ Local “
Type of fuel	:	Solar
Place of Test	:	Farm Location
Date of test	:	5 / 6 / 2007

Test Results:

Type of air pollutants	Emission levels or concentration	Maximum permissible limits
Carbon Monoxide (CO)	1.12%	2.5% (in volume) at speed of (600-900) R.P.M.
Unburned Hydrocarbons (HC)	67.0 ppm	600 ppm at speed of (600-900) R.P.M.
Smokes	1.13 %	30% degree of opacity

Conclusion:

On the basis of our testing according to executive regulation of Law No. 4 for 1994 and Its adjustment No. 1741 for 2005 – the level of air pollutants emitted less than the maximum permissible level.



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Evaluation of Air Pollutants Emission Report

Client	:	
Equipment to be tested	:	Jeep Car Petrol
No. of Equipment	:	
Type of fuel	:	Solar
Place of Test	:	Farm Location
Date of test	:	5 / 6 / 2007

Test Results:

Type of air pollutants	Emission levels or concentration	Maximum permissible limits
Carbon Monoxide (CO)	1.62%	2.5% (in volume) at speed of (600-900) R.P.M.
Unburned Hydrocarbons (HC)	118.0 ppm	600 ppm at speed of (600-900) R.P.M.
Smokes	2.11 %	30% degree of opacity

Conclusion:

On the basis of our testing according to executive regulation of Law No. 4 for 1994 and Its adjustment No. 1741 for 2005 – the level of air pollutants emitted less than the maximum permissible level.



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Evaluation of Air Pollutants Emission Report

Client	:	
Equipment to be tested	:	Tractor Chin Model
No. of Equipment	:	71 “ Local “
Type of fuel	:	Solar
Place of Test	:	Farm Location
Date of test	:	5 / 6 / 2007

Test Results:

Type of air pollutants	Emission levels or concentration	Maximum permissible limits
Carbon Monoxide (CO)	0.58%	2.5% (in volume) at speed of (600-900) R.P.M.
Unburned Hydrocarbons (HC)	126.0 ppm	600 ppm at speed of (600-900) R.P.M.
Smokes	1.14 %	30% degree of opacity

Conclusion:

On the basis of our testing according to executive regulation of Law No. 4 for 1994 and Its adjustment No. 1741 for 2005 – the level of air pollutants emitted less than the maximum permissible level.