



**EUROPEAN  
INTERNATIONAL  
UNIVERSITY**



## COVER PAGE AND DECLARATION

	<b>Master of Business Administration (M.B.A.)</b>
<b>Specialisation:</b>	
<b>Affiliated Center:</b>	
<b>Module Code &amp; Module Title:</b>	
<b>Student's Full Name:</b>	
<b>Student ID:</b>	
<b>Word Count:</b>	
<b>Date of Submission:</b>	

**I confirm that this assignment is my own work, is not copied from any other person's work (published/unpublished), and has not been previously submitted for assessment elsewhere.**

---

**E-SIGNATURE:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**EIU Paris City Campus**

**Address:** 59 Rue Lamarck, 75018 Paris, France | **Tel:** +33 144 857 317 | **Mobile/WhatsApp:** +33607591197 | **Email:** [paris@eiu.ac](mailto:paris@eiu.ac)

**EIU Corporate Strategy & Operations Headquarter**

**Address:** 12th Fl. Amarin Tower, 496-502 Ploenchit Rd., Bangkok 10330, Thailand | **Tel:** +66(2)256923 & +66(2)2569908 | **Mobile/WhatsApp:** +33607591197 | **Email:** [info@eiu.ac](mailto:info@eiu.ac)

# **European International University**



## **MGT550: Managing Operations**

### **Module Assignment: Operational Procedures & Guide**

## Contents

Introduction: .....	3
Operational industrial streamline procedural guide that will help the Big Green Tractor from start to finish with their production:.....	5
Use of 21 <sup>st</sup> century tools for Greener Process:.....	13
Socially responsible operational guide for the Big Green Tractor for the pollutants:.....	14
Conclusion.....	19
References .....	20

## Introduction:

### Standard Operating Procedures

Standard Operating Procedures (1) are set of written instructions that document a routine or repetitive activity followed by an organization. There are documents which increase performance of the determined process, to help coming into being processes for enhancing quality. They must be revised continuously to manage the same quality. SOPs helps in Management of work in less time.

SOPs is a written set of rules that specify in advance and in detail how an organization is set up to perform a specific job, How it will function in an effective, Harmonious and conclusive manner, and who where ,when and what needs to be done. It also includes information on how to share, what to record, and when to report(2)

Many Organizations don't have standard guidelines or actively use them because of traditional causes, even if they have. Today the aim of SOPs is to ensure that all the employees perform their performance in the same way. When all the employees perform their tasks properly, it becomes possible to perform controlled experiments to test the effect of various changing processes parameters (3). Institutions can not produce effective and secure Jobs in modern societies without SOPs and without developing and implementing them. Organizations that avoid choosing this fact causes increasingly damage accidents, Unnecessary expenditures, Personal problems and professional appearances (4).

The development and use of SOPs leads to reduction in quality and a minimum of diversity through the application of process consistently with in an organization even if it involves temporary or permanent staff changes. (5).

Benefits of SOPs in general includes

- 1) To state the consistency and quality of the institution
- 2) Ensuring the best practices that have been achieved at all times
- 3) Use of an opportunity to benefit from the expertise of all memers
- 4) To allow other activities to be carried out at the same time
- 5) Preventing the mess related to who did the work

- 6) Use as a guide for all kind of employees
- 7) Useful guide for training new members
- 8) Contribution in process Control

As a result it should be remembered that main purpose is to increase the quality. Working staff should be convinced that this is a useful document that help employees with their work.

### **Automotive Industry and its role in development of economy**

The automotive sector is one of the most important for a country's economy and trade. The strength of the automotive sector leverages other sectors of the economy. The sector is the second largest sector for the steel industry, consuming around 15% of total production of this material, second only to the construction sector. Other major businesses relating to the automotive industries are the aluminum sector (5%), petrochemicals specially plastics (7%), and Glass (6).

The automotive industry is relevant in terms of its impact on the economy as well as on technology as stated by Humphery and Memedovic (7) the automotive sector is global and is characterized as Capital Intensive industry with vertical integration and economies of scale (8). It has been responsible for the development of technological innovation and Management and the original major change on the industrial production processes( 9,10).

Bastin(11) explains that government in various parts of the World have been implementing measures for increasing environment friendly productions Such as Brazil where Brazilian Vehicle registration Program was created to improve the energy efficiency of new light vehicles. In the US, with emission control legislation (HC, CO, NOx) (12); In China where the national High Technology Research and Development Program (So Called 863 Program) was created (13). Moreover in some European countries, with the implementation of the European Union End of Life Vehicle Directive which aims to increase the recovery of end of life vehicles and thus, reduce waste and improve environmental performance (14).In the world economy, the automotive industry generates more than \$2.5 trillion in revenue per year and corresponds , in general, to roughly 10% of the Gross Domestic Product (GDP) of developed countries (15).

## Operational industrial streamline procedural guide that will help the Big Green Tractor from start to finish with their production:

### **Budgeting:**

Purpose:

Budget is a financial plan for a defined period of a year. It may also include planned sales volumes and revenues, resource quantities, costs and expenses, assets, liabilities and cash flows. The purpose of budget includes the following aspects;

- A forecast of income and expenditure
- A tool for decision making
- A means to monitor business performance

### Policy and Procedures

Big Green Tractor shall prepare initial draft of budget for their respective sections considering the following factors;

- Manpower
- Tools & Equipment
- Investment & Expenses
- Travelling
- Technical Support
- Consumables & Support material
- Resin Material

BGTs budgeting department shall prepare budget and send it for review and approvals to relevant authorities as per Departmental structure

BGT budgeting department shall present the budget to HOD to get his/her approval.

Before approval, HOD shall analyze the budget and recommend changes, if required.

Budgeting department shall compile the final budget and send a copy of budget to AOP in excel format to prepare budget summary. Moreover, Budgeting team along with HOD shall report budget to General Manager or Assistant Vice President (as designated) Production in meeting for approval.

After the review of GM/AVP Production, the following cases may be observed.

- A. Not Approved
- B. Approved

In case of Not Approved

Manager Budgeting shall incorporate changes suggested by the GM/AVP and intimate all changes.

In case of Approved

The Manager Budgeting shall submit the approved budget to the VP for his/her approval. After the review of VP Production, the following cases may be observed.

A. Not Approved

B. Approved

In case of Not Approved Manager Budgeting shall incorporate changes suggested by the VP and intimate all changes to HOD.

### **Ordering and Receiving of Material:**

Purpose

The purpose of this chapter is to ensure all the activities pertaining to ordering and receiving of material by PO Injection department from Production Control (PC) department.

Policy and Procedures

Inventory controller (IC) shall create reservation (Material Transfer Request MTR) for material in SAP as per PO Injection' Production Plan. Such reservation for material shall be created before three days of production. MTR contains the following contents;

- Reservation number
- Material Code/Description
- Item Number
- Quantity

IC shall take print the reservation and take signature on it from Department In charge (DI).

IC shall send reservation to PC for material.

IC shall receive material from PC's location and take signatures from PC associate on that reservation named as material transfer request (MTR).

Material shall be received at PO Injection's location by PC.

PC shall post the MTR in SAP to transfer material from PC to PO Injection.

### **Production Order and Consumption:**

Purpose:

The purpose of this chapter is to ensure all the activities pertaining to production order and consumption at PO Injection department

Policy and Procedures:

PC shall share monthly production plan with PO Injection department via e-mail.

PO Injection HOD shall receive production plan and share it with inventory controller (IC).

IC shall convert monthly production plan into departmental production plan.

IC shall create production order in SAP as per PO Injection's production plan at start of the each month. DI shall confirm the production order as per actual production on daily basis.

IC shall put operation code "0010" in SAP to on the operation. At this stage, consumption shall be recorded in SAP.

All resin material shall be converted into parts in production line.

IC shall put operation code "0020" in SAP to off the operation at the end of day. At this stage, parts shall be transferred to Quality Control Leader (QCL) in SAP for quality inspection.

Parts shall be confirmed by QCL in SAP.

IC shall create reservation in SAP for parts.

IC shall transfer parts to PC location in SAP against reservation.



IC shall physically deliver the parts to PC after transfer/posting.

At month end, IC shall make final confirmation of production order in SAP. If any differences arise between production order and actual production, these shall be reported to HOD and PC.

After production, scrap material shall be transferred to Logistics division by IC after taking receiving from IC of Logistics division. Receiving shall be taken on specified document which contains the following contents;

- Date of transfer
- Signature of associate who confirms the document
- Signature of associate who checks the document
- Signature of personnel who approves the document
- Quantity of material

### **Safety Apparatuses:**

#### Purpose

The purpose of this chapter is to ensure all the activities pertaining to safety apparatuses whether production line associates wears safety gadgets.

#### Policy and Procedures

Shift in-charge shall monitor the safety apparatuses as defined in the OPS and he shall observe each line associate to ensure whether he wear the safety apparatuses or not. A. Line associate does not wear the safety apparatuses.

Upon observing the non-compliance of the safety wears policy the shift in-charge shall remove the associate from the line immediately, issue warning and ask for the explanation.

Shift in-charge shall closely monitor the warned associate following his incompliance. If the associate continue to breach the aforementioned safety law, he shall inform to HOD.

HOD shall intimate the HR division regarding the misconduct for further evaluation.

Shift in-charge shall submit the sheet to the HOD for the confirmation at month end and submit the signed sheet to QR/ER.

### **B. Line associate wears the safety apparatuses**

Shift in-charge shall fill the daily safety monitoring sheet at end of day and also provide his observations on such sheet.

At month end, HOD shall confirm the safety monitoring sheet.

Shift in-charge shall share safety monitoring sheet with QR/ER in order to keep in record for five years.

### **Safety Patrol (Internal)**

#### Purpose

The purpose of this chapter is to ensure all the activities pertaining to safety patrolling which is performed to circulate awareness to deal with emergency situations.

#### Policy and Procedures

Safety patrol team shall conduct visit to identify the problematic areas. Safety patrol team shall consists off the following;

- Safety in-charge
- Sub section in-charge
- Department in-charge
- Department head
- Section in-charge
- Team shall identify the problematic areas and designated team member will capture the pictures of such problematic area.

Designated team member will note down the identified issue on safety patrolling sheet and hand over to QRER after taking sign from DI on that sheet.

QRER (Quality Representatives and Environmental Representatives) shall get approval on safety patrolling sheet from HOD.

HOD may suggest counter measures, if required.

QRER shall send safety sheet to shift in-charge. However, production/safety in-charge shall suggest counter measures and write down on such sheet after performing them on problematic areas.

Safety in-charge shall submit safety patrolling sheet to QRER.

QRER shall conduct physical visit of that problematic area in order to ensure whether issues are resolved or not. In case issue is not resolved

QRER shall coordinate with safety in-charge to sort out that issue. In case issue is resolved

QRER shall keep safety patrolling sheet in record for five years.

### **Safety Patrolling (External)**

#### Purpose

The purpose of this chapter is to ensure all the activities pertaining to safety patrolling which is performed to circulate awareness to deal with emergency situations.

#### Policy and Procedures

Safety patrol team shall visit the whole department to identify the problematic areas. Safety patrol team shall consists off the following;

- Safety committee (including members from other departments)
- Department in-charge
- Department head (HOD)

- Production in-charge
- GM Production
- AVP Production
- VP Production
- Team shall identify the problematic areas and designated team member will capture the pictures of such problematic area.

Designated team member will note down the identified issue on safety patrolling sheet and hand over to QRER after taking sign of team leader on that sheet.

Designated member of team shall write down the problems in e-mail and send it to HOD.

HOD shall send it to safety in-charge after review.

Safety in-charge shall take print of that e-mail.

Safety in-charge shall suggest counter measures and write down on such sheet after performing them on problematic areas.

Safety in-charge shall submit safety sheet to DI.

DI shall conduct physical visit of that problematic area in order to ensure whether issues are resolved or not. In case issue is not resolved

QRER shall coordinate with safety in-charge to sort out that issue. In case issue is resolved

QRER shall send that sheet to safety committee after signing off by HOD.

Safety in-charge shall scan that document and send it to DI.

DI shall send it to safety committee via e-mail.

Safety in-charge shall keep safety sheet in record for five years.

### **Fire Fighting Drill**

## Purpose

The purpose of this chapter is to ensure all the activities pertaining to annual drill conducted by the Fire Fighting committee.

## Policy and Procedures

Firefighting committee shall consist of designated members from Big Green Tractor which are designated by the chairman of the committee. The firefighting committee shall plan the annual drill at the start of each Ki while the execution of annual drill shall be performed in the third quarter. Firefighting team shall consist of 5 squads with each squad responsible for one of these following;

- Firefighting
- Exit
- Rescue
- Document rescue
- Communication team

Firefighting committee shall intimate the plan of annual drill to HOD via e-mail.

Furthermore, HOD shall share the annual drill plan with the safety in-charge.

Safety In-charge shall prepare the internal drill plan and take approval from HOD. Moreover, safety in-charge schedule a meeting with shift In-charge for the planning of annual drill.

Rehearsal, with an element of surprise, shall be executed internally.

Department in-charge and safety in-charge shall monitor the rehearsal for its effectiveness. If there shall be any areas of improvement observed by the monitoring team these shall be communicated and the rehearsal shall be performed again.

Annual drill shall be executed by firefighting committee with an element of surprise.

Annual drill shall be monitored by the firefighting committee in presence of the HOD, Safety Incharge and other senior personnel.

Firefighting committee shall share remarks with HOD detailing the quality of the skills exhibited and chances for improvement, if any, and other specific details shall also be included in the report.

Safety in-charge shall prepare the report on drill and take sign from HOD.

Safety in-charge shall keep one copy of that report and original one submit to committee.

## Use of 21<sup>st</sup> century tools for Greener Process:

### **Environment**

#### Purpose

The purpose of this chapter is to ensure all the activities pertaining to the environment safeguarding activities at PO Injection department.

#### Policy and Procedures

Annual monitoring plan shall be prepared by Environment Representative (ER) which shall be for “Noise” and “Smoke emissions”. Monitoring plan includes internal and external monitoring of environment. Internal monitoring shall be performed by Maintenance department in which noise and smoke will be tested on semi-annual basis. On the other hand, external monitoring shall be performed by third party in which smoke will tested annually.

ER shall share the plan with DI in a meeting to get his/her input. After the meeting, the plan shall be shared with the maintenance dept. for the compilation.

Maintenance department shall compile the plans and get it approved from the maintenance HOD after which the plan shall be shared with all department’s respective ER personnel.

Final plan shall be received by the ER and discussed with DI in a meeting for the execution.

Following scenarios may be observed;

## A. Internal Monitoring

## B. External Monitoring

### Internal Monitoring

Noise test shall be performed by the maintenance department on semi-annual basis to ensure the operations are as per environmental standards.

Upon the completion of the monitoring, the results shall be shared with the ER by Maintenance department. These results shall be discussed with the HOD in a meeting by ER.

### External Monitoring

ISO secretariat shall coordinate with the external third party to perform the smoke test at Green tractor. Third party, on the directions of ISO secretariat, shall perform the testing of smoke on yearly basis.

Third party after the monitoring shall deliver the stake emission monitoring report to the secretariat.

ISO secretariat shall share the results of the third party testing with the ER and then ER shall discuss the results with HOD.

QRER shall keep discussed results in the records for the next five years.

DI shall compare the results internally generated with results provided by third party after performing test in order to analyze the effectiveness of tests performed internally. Moreover, a reconciliation shall also be prepared on above discussed comparison. HOD shall review the results generated by DI.

## Socially responsible operational guide for the Big Green Tractor for the pollutants:

### a. Industrial Guide on Disposals of Chemical Wastes:

**The most common chemicals used by automotive industries are:**

- **Lubricating Oil including Waste Oil**

- **Brake Fluid**
- **Coolants**
- **Fuel**
- **Chemical Solvents and Other Cleaning Fluids.**

## **Spillage Drill**

### Purpose

The purpose of this chapter is to ensure all the activities pertaining to the incident of spillage in PO Injection department.

### Policy and Procedures

Spillage drill shall be planned at the start of each Ki by the safety committee internally and shall be performed on monthly basis in presence of HOD/DI.

Safety In-charge shall conduct a meeting with the shift In-charge to decide the date of the drill need to be performed in future. The dates shall be kept confidential for the element of surprise.

The drill shall start with oil being spilled from equipment or container. Section in-charge shall intimate to maintenance department on call for their assistance.

After receiving the call, maintenance department shall respond quickly and reach the site of spillage.

PO Injection safety team shall wear safety equipment and build a boundary wall around the affected area to stop the oil from spreading.

Maintenance department shall perform appropriate actions to stop the oil spillage from the equipment.

PO Injection associates shall remove and wipe the oil from the site to resume the production activity.



Whole drill shall be monitored by the HOD and safety committee. Furthermore, the committee shall give remarks in respect of the drill.

In case the remarks are unsatisfactory, the drill shall be performed again at a later date in the same month.

If the remarks are satisfactory, the safety In-charge shall prepare the report detailing the event, the outcomes and the remarks which shall be authorized by the committee.

Safety in-charge shall keep the approved report in the records for the next five years.

You need to comply with The work Cover NSW requirements relating to chemicals hazards in the workplace. Chemicals also present a big risk to environment polluting rivers and other sources of water. Fires involving chemicals can spread toxic fumes. Spill Management and bunding are important in waste management.

When Storing chemicals, Consider nature of substance and store material in specified container. Have close inspections to identify Rusted, damaged or replaceable container and replace it immediately.

Labeling and tagging are important in identification of different types of chemicals. Ensure date of manufacturing and Expiry are mentioned on each container. All records at production facilities should be updated.

While using flammable liquids comply with standards such as (17) Waste disposal agreements are required for disposal of wastes. An agreement and permission may be required for discharging trade waste water into sewer. The agreement sets out conditions for waste disposals. Most of government authorities requires business for treatment of waste before it can be discharges into the sewer. For instance as a minimum guide for treatment it is often required for separation of water from Oil . Different types of machines like CPI tanks are being used for these purposes. These devices used for treatment are in a specified area to ensure leaks do not occur and cause water of land pollution.

Any material including hazardous materials as chemicals may pollute soil or water. Hence ground should not be used as means of disposing unwanted substances. These chemicals can

accumulate in soil and seep into it degrading water ways or underground water,. They may also affect people who are in direct contact with contaminated oil.

Special storage requirements are necessary for automotive chemicals. These chemicals should be stored in secured bunded areas and Specific containers, An alternative might be to store these in underground tanks provided these are appropriately maintained and inspected for leaks and corrosion on regular basis.

**b. Green Alternatives to traditional Manufacturing Processes:**

While the question of why a company should implement environmental management practices may already have been addressed, there are still many other questions that need further investigation. For instance, even if there is an “Environmental Budget” how are companies making environmental decisions? To determine where a company should invest is a challenging and strict decision that involves various possibilities (e.g. in facilities, manufacturing, logistics, marketing, process and product design, etc.) Another difficult aspect of environmental initiative is how to implement them in a way to also meet corporate goals of profitability as well as other business requirements. This is because of the elementary reasoning behind environmental protection. While most business practices return private profits, environmental protection is strongly recognized as a public good (16).

There have been many attempts to select the most important practices for more sustainable operations management (18). However there is still a gap in the literature based on “What to do” and “How to do it” (19). The business sustainability calls for a broader scope for greening operations suggesting that “tomorrow business must learn to make a positive impact on the environment (20)

## Conclusion

For the automotive industry, the major global impacts result after production from vehicle use (21). However, there are serious environmental concerns about the production and final disposal of cars. The use of automobiles consumes a significant amount of fossil fuels, and therefore is an important source of pollution. During vehicle production the main negative environmental impacts result from solid waste generation, emission of Volatile Organic Compounds (VOCs) and high levels of energy and water consumption. In addition, end of life cars may contaminate the soil and aquifers if there is irresponsible final disposal and inadequate management of landfill sites.

The interactions between design, production and use and disposal of vehicles and also greater complexity and difficulties in taking environmental decisions, For example, reducing the weight of vehicle is one of the techniques to reduce fuel consumption during use. This is usually done by substituting plastics, aluminum and composites for steel in cars. However this technique makes disassembly more difficult and therefore negatively affect the recycling of end of life vehicle (22)

Similarly, the use of Just-in-Time practices may improve environmental performance in manufacturing, but it can increase the energy used in logistics due to more frequent deliveries (23).

## References

- 1) 1) DrAlper Bodur (Istanbul Water and administration ISKI Urmaniye Istanbul)
- 2) Saglik Bakanligi, 2011
- 3) Akyar 2012
- 4) FEMA -1999
- 5) EPA -2007
- 6) CUSTÓDIO, A.L.D.M.; RENATO, M. Guia Para Elaboração de Balanço Social e Relatório de Sustentabilidade 2007; Instituto Ethos: São Paulo, Brazil, 2007
- 7) Humphery, J ; Memedovic, O . The Global Auto industry Value Chain: What prospects for upgrading by developing countries 2003
- 8) Schulze, A; MacDuffie, JP Taube , FA Introduction: Knowledge generation and innovation diffusion in the global automotive industry
- 9) Barros DC Castro BHRD Vaz LFH Automotive In panoramas Setoriais: Mudancas Climaticas; Banco Nacional de
- 10) Sturgeon T; Van Biesebroeck, J,; Gereffi, G. Value chains, Networks and Clusters, Reframing the global automotive industry. J. Econ. Geogr 2008
- 11) Bastin , C Szklo: Diffusion of new automotive technologies for improving energy efficiency. Energy Policy 2010
- 12) Berggreen , C Magnusson, Reducing automative emissions Energy Policy 2012
- 13) Liu, Y. Kokko, A: Who does what in Chinas new energy vehicle industry. Energy Policy 2013
- 14) Jerrad J. The impact of the ELV directive on green innpovation and vehicle recovery. Clean Prod 2007
- 15) ANFAVEA: Saupolo Brazil 2014
- 16) (Orasto 2006)
- 17) AS 1940-2004
- 18) Kleindorfer et al, 2005: Angel and Klassen,1999; Sarkis 1998; Shrivastava,1995
- 19) Orasto 2006: Kleindorfer et al, 2005
- 20) Hart 1997
- 21) Mildenberger and Khare, 2000
- 22) Van Hoek 2002
- 23) Zhu and Sarkis, 2004; King and Lenox, 2001