

# COMMON MISTAKES IN CHRA

CHEMICAL HEALTH RISK ASSESSMENT 3<sup>RD</sup> EDITION

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# SCOPE

- Element in the CHRA Report Based on CHRA 3<sup>rd</sup> Edition
- Common Mistakes Done by Assessor
  - Concept ( during interview)
  - Report

# OVERVIEW OF ASSESSMENT REPORT

- Report Title Page
- Executive Summary
- Table of Contents
- Introduction
- Process and Work Unit Description
- Assessment Methodology
- Assessment Findings
- Discussion
- Recommendations On Action To Be Taken
- References
- Appendices

# FORMAT OF ASSESSMENT REPORT

## –Executive Summary

- Location and date
- Main objectives
- Main activities – work unit, no. of chemicals
- Summary of findings (total level of risk & action priority)
- Main Recommendation to the employer
- Should limit to one page (preferable)
- Written after the rest of the report has been prepared.

# **FORMAT OF ASSESSMENT REPORT**

## **– Introduction**

- Company & Work Site
- Objective & Scope Of Assessment
- Summary Of Previous Assessment ( if any)

# **FORMAT OF ASSESSMENT REPORT – Process & Work Unit Description**

- Process carried out by workplace
- Flowchart or description of process
- Potential exposure to CHTH
- How work unit selected, structured, categorized / determined, routine & non-routine, shift pattern, job rotation, category & no. of workers

# FORMAT OF ASSESSMENT REPORT

## – Assessment Methodology

- Do not reproduce extracts of the steps or procedures from the manual – briefly describe how the methodology applied
- Quantitative assessment – how data was analyzed & conclusion obtained
  - Other methodology need to get DG approval

# **FORMAT OF ASSESSMENT REPORT**

## **– Assessment Findings**

- Work Unit against Level of Risk & Adequacy Of Existing Control Measures
- Significant result to be discussed in Discussion section
- Labelled tables / graphs (advisable)

# FORMAT OF ASSESSMENT REPORT

## – Discussion

- Factors contribute to significant risk
- Relate to level of risk & adequacy of control measures
- Observation on work practices, procedures, controls, measures, etc
- Workers health feedback

# FORMAT OF ASSESSMENT REPORT

## – Discussion (cont)

- Form A to D – capture data
- Re-assessment
  - Significant changes on hazards
  - New or improved control measures
  - Action taken from previous assessment

# FORMAT OF ASSESSMENT REPORT

## – Recommendations On Action To Be Taken

- Specific, Measurable, Achievable, Realistic/Relevant & Time-bound (SMART)
  - Control Exposure to CHTH
  - Comply with Legal requirements
  - Assurance
- Practicability
- Action on
  - Technical, Organisational Control, Emergency Response Preparedness (ERP)
  - Exposure Monitoring
  - Medical Surveillance

# **FORMAT OF ASSESSMENT REPORT**

## **– Recommendations On Action To Be Taken (cont)**

- Depend on Level of Risk; acute or chronic & necessary protection
- Assign AP – guidance to employer
- State the legal requirement

# FORMAT OF ASSESSMENT REPORT

## – References & Appendices

- Literature / documentation referred
- Appendices
  - Form A to D
  - Layout plan & location of worker
  - Process flowchart
  - Assessor competency slip
  - Others relevant information (eg Lab. Result)

# THE COMMON MISTAKES

BASED ON REPORT & INTERVIEW

# #1 EXECUTIVE SUMMARY

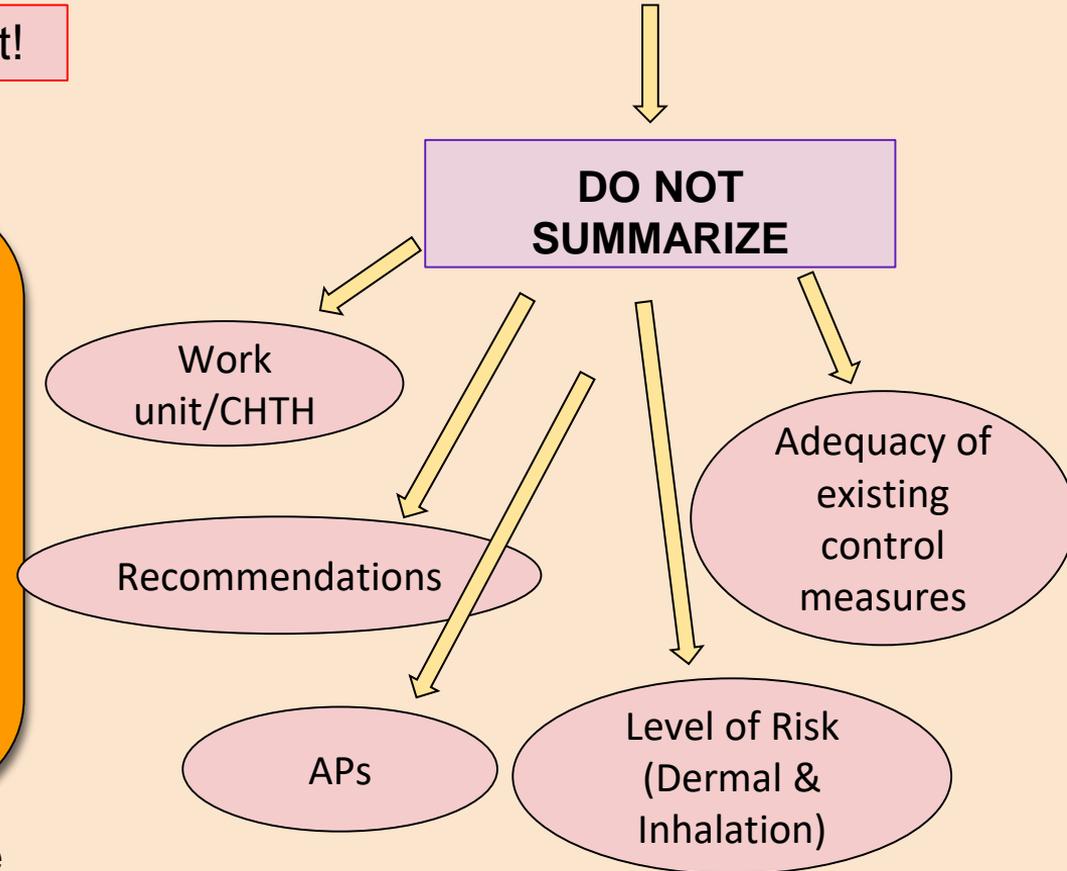
It is not an introduction to the report!

**SHOULD** OUTLINE:-

- ❖ Location & date of assessment
- ❖ Main objective of the assessment
- ❖ Main activities of the assessment
  - Work unit selected,
  - Total number of chemicals assessed
- ❖ Summary of findings (total level of risk and action priority)
- ❖ Main recommendation to the employer

→ **Preferably** not more than one page

## COMMON MISTAKE BY ASSESSOR



# #2 SUMMARY OF PREVIOUS ASSESSMENT AND FINDINGS

The 3<sup>rd</sup> Manual mentioned that:

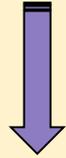
- ✓ If there was a previous assessment done on the worksite, include a short write up on the assessment finding and recommendation.
- ✓ If assessment has been done previously but the report not accessible, the assessor should state in the report.

## COMMON MISTAKES

The assessors did not summarize the previous assessment and findings.

# #3 ASSESSMENT METHODOLOGY

**REALITY**



The assessors copy the whole content of 3<sup>rd</sup> Manual in the report.

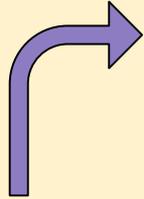
- Assessor to describe the assessment methodology used

If the assessment methodology is based on 3<sup>rd</sup> Manual:-

- **DO NOT reproduce extracts of the steps or procedures directly from the manual**
- Assessor to describe briefly how the methodology was applied in the assessment

For other assessment methods:-

- Assessor declare details of the methodology and describe the procedures involved based on the adopted methodology



**EXPECTATION**

# #4 ASSESSMENT FINDINGS

This section correlates the findings on the **level of risk** and **adequacy of existing control measures** for **each work unit assessed**. The findings may be presented in many ways but it is best to organize via **labelled tables and or graphs** where feasible. The findings may be tabulated based on work units against the level of risk and adequacy of existing control measures. Highlight the **significant results**, describes the results presented in the table and mention the significant results that will be discussed in the discussion section.

## COMMON MISTAKES

The assessor commonly did not discuss the assessment findings

The assessor not discuss on ingestion assessment

The assessor will refer to the Form A to D directly

# #5 DISCUSSION

The 3<sup>rd</sup> Manual mentioned that

- ★ Assessor should discuss all the factors that **may contribute to the significant risk of the work unit mentioned in findings** section.
- ★ Relate the factors discussed to the level of risk and adequacy of control measures. Include discussion on adequacy of any existing control measures that has been implemented e.g. substitution, elimination, installation of LEV and their effectiveness.

- ★ Address any positive and or negative observations on work practices, procedures, controls measures, etc., that may influence the results of the assessment.
- ★ If there are any workers' health feedbacks, discuss if there is any association with their exposure at the work unit.



The 3<sup>rd</sup> Manual also mentioned that:

## COMMON MISTAKES

- ★ The Forms A to D are used to capture the relevant data that are useful for the assessment. They are meant to guide assessors in following the steps in conducting the assessment as per this manual's methodology. They may also serve as assessor's notes in gathering and tabulating data during the assessment. Use the forms as references to write the discussion on the findings.
- ★ **Do not refer the employer to the filled-up forms without writing any discussion**
- ★ When conducting re-assessment, the report should discuss:
  - Any significant change on the hazards;
  - New or improved control measures;
  - Actions taken from previous assessment.

## BUT...

- ❖ Assessor **commonly** did not write up the discussions
- ❖ The assessor will refer to the Form directly

# #6 RECOMMENDATIONS ON ACTION TO BE TAKEN



The 3<sup>rd</sup> Manual mentioned that:



The recommendations should contain the proposed actions based on the interpretation of the findings made and should include the following:

- ❖ Actions to be taken on technical control;
- ❖ Actions to be taken on organisational control emphasis on training and retraining;
- ❖ Actions to be taken on emergency response preparedness;
- ❖ Actions to be taken on exposure monitoring; and
- ❖ Actions to be taken on medical surveillance. Actions to be taken will depend on the level of risk; the acute or chronic nature of the effects; and the necessary protection. Make references to Sections 10.2 and 10.3 and the filled Form D when formulating the recommendations

Cont...

**Do not ask the employer refer to Form D to get the recommendation,** rather, it should be mentioned and listed in this section. Where there is possibility of abnormal exposures occurring, the assessor should recommend appropriate action to minimise the risk.



**Assign AP to each of the recommendations made. AP was meant to guide the employer in preparing the implementation plan of the recommendation given.**



If a recommendation is made to comply with a legal requirement, state the regulation and title of the regulation mentioned. It is not advisable to copy the said regulation into recommendation statement.

## COMMON MISTAKES

Commonly, the assessor listed the recommendations based on in compliance of USECHH Regulations such as the employer need to update the chemical register etc. instead of recommend actions to be taken on TC, OC, ERP, MS, CEM.

The assessor ask employer to refer to the Forms directly.

# #7 ASSESSMENT CONCLUSION

## THE PROBLEM IS:-

The 3<sup>rd</sup> Manual mentioned that:

→ The assessment can be concluded based on the result of the level of risk and the adequacy of existing control measures which are:

- 1) High risk and adequately controlled
- 2) High risk and inadequately controlled
- 3) Moderate risk and adequately controlled
- 4) Moderate risk and inadequately controlled
- 5) Low risk and adequately controlled
- 6) Low risk and inadequately controlled

→ The assessment conclusion is used as a basis to prioritise the action to be taken by employer for controlling the exposure to CHTH.

Assessor commonly assumed AP is the assessment's conclusion. Unfortunately, the conclusion should / based on:

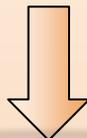
- ★ The results of the level of risk
- ★ The adequacy of existing control measures

Which are:

- High risk and adequately controlled
- High risk and inadequately controlled
- Moderate risk and adequately controlled
- Moderate risk and inadequately controlled
- Low risk and adequately controlled
- Low risk and inadequately controlled

# #8 FORM A

## COMMON MISTAKES



The assessor misconception of possibility of mixed exposure:-

Mixed exposure means if a worker is **exposed to different chemicals** that may affect the same target organ (systemic effect).

Example: Toluene and Xylene have the same effect i.e. depression of central nervous system (CNS).

Unfortunately, the assessor's understanding was the mixed exposure means if there is a mixture of the 2 or more chemicals.

# #9 FORM B

## *The assessor misconception of*

Ingestion YES/NO based on the exposure at the workplace. At this point, Form B is filled due to the chemical itself. Not due to the exposure yet.

The assessor did not realize if hazard classification or hazard statements do not specify specific routes of exposure, then the hazard classification should be applied to all routes of exposure (inhalation, dermal and oral/ingestion).

### Source of information:

If the source of the information is not from the SDS, assessor did not specify the source of references such as IARC, journal etc.

Assessor classify CHTH based on his own converted Hcode based on health effects found in SDS.

# #10 FORM C

## COMMON MISTAKES

Commonly, the assessor might have misslooked the Note in page 30 which mentioned as below:

- If inhalation identified as one of possible routes of exposure but SDS or hazard information does not indicate hazard classification or health effects through inhalation, assign HR as 1.
- Thus, the assessor must assign HR=1 if there is a possibility of ROE through inhalation at the workplace (exposure to the workers at the workplace). E.g acid mist

# #11 FORM D

## COMMON MISTAKES

Table D5: Specific Action to be Taken!

Form D5 is only meant for

- **Carcinogenicity Cat 1 or Respiratory Sensitizers**
- **Immediate danger to life or property; and**
- **Level of risk could not be determined**

# #12 NECESSITY OF CHEMICAL EXPOSURE MONITORING

## COMMON MISTAKES

Assessor needs to identify the necessity of exposure monitoring programme for each work unit assessed. When recommending air monitoring, assessor must consider:

- ❖ The route of exposure is through inhalation.
- ❖ Likelihood of chemicals to be airborne.
- ❖ The chemical identity or the specific chemical name.
- ❖ Availability of PEL or OEL.
- ❖ Availability of validated method of sampling and analysis.

However, the assessor still did not follow the guidance on the necessity of CEM as mentioned in the 3<sup>rd</sup> Manual. Did not specify justification at all for CEM – ‘continue maintain current practices’

# #13 NECESSITY OF MEDICAL SURVEILLANCE

Assessor needs to **identify the necessity** of medical surveillance programme **for each work unit assessed**. When recommending for medical surveillance programme, assessor needs to consider:

- ★ The necessity of medical surveillance; and
- ★ The availability of valid technique to detect indication of disease or health condition related to exposure to CHTH.

exposure to CHTH

## COMMON MISTAKES

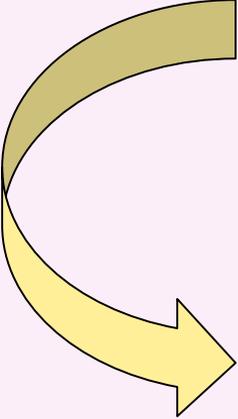
### HOWEVER

The assessor still did not follow the guidance on the necessity of MS as mentioned in the 3<sup>rd</sup> Manual. Still based on the misconception that all CHTH listed in Schedule 2 of USECHH Regulations is compulsory to conduct MS

# #14 OTHER ISSUES



## COMMON MISTAKES

- 
- Not aware of the corrigenda uploaded in the website
  - Manual CHRA 3<sup>rd</sup> Edition First Reprint 2018

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