Hengyi Industries Sdn Bhd
恒逸实业（文莱）有限公司

No.2 Refinery Department DCS Operation System Management Rules

炼油二部 DCS 操作系统管理细则

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Issued by: Yang Fan

编　　制：杨　帆

Reviewed by: Sun Jian Huai

审　　核：孙建怀

Approved by: Sun Jian Huai

批　　准：孙建怀

Version Information 版本信息

1.　Version 1　第一版

Version 1 was released in November 2023. It has been revised for 3 times since then.

第一版发布时间为 2021 年 3 月，此后经过 2 次修订。

2.　Current Version　此版本

This is the fourth version, which is released and implemented in April 2025, and repeals the previous edition "HYBN-T9-11-0049-2024-2_No.2 Refinery Department DCS Operation System Management Rules".

此版本为第四版，于 2025 年 4 月发布并实施，同时废止此前版本的《HYBN-T9-11-0049-2024-2_炼油二部 DCS 操作系统管理细则》。

Content 目录

1　Purpose 目的

The safe operation of the DCS operating system is the key to the daily safe and stable production of the unit. Since the company started operation, there have been several consecutive incidents in which production fluctuations and even unit shutdowns have occurred due to incorrect input of values. To strengthen the management of the DCS operating system, these rules are formulated.

DCS 操作系统的安全运行是装置日常安全平稳生产的关键，公司自运行以来，已连续发生几次因误输入数值导致生产波动甚至装置停工的事件事故。为加强 DCS 操作系统的管理，特制定本细则。

2　Scope of application 适用范围

2.1 These rules stipulate the responsibilities, management content and requirements of the DCS operating system management of No. 2 Refinery Department

本细则规定了炼油二部 DCS 操作系统管理的职责、管理内容及要求。

2.2 These rules apply to the management of the DCS operating system of No. 2 Refinery Department

本细则适用于炼油二部 DCS 操作系统管理。

3　Management responsibilities 管理职责

The process specialty is responsible for the daily management and maintenance of the operation of the entire DCS system, and is responsible for the revision, supervision and inspection of these rules, and the team is responsible for the implementation of these rules.

工艺专业负责日常 DCS 整个系统运行的管理以及维护，并负责本细则的修订、监督检查，班组负责本细则的执行落实。

4   Management content and requirements 管理内容及要求

4.1 Requirements for the DCS System Console DCS 系统操作台要求

4.1.1 During daily operations, the DCS system console and monitoring screens should be kept neat and tidy. It is strictly prohibited to place any debris or heavy objects on the operation keyboard.

日常运行期间，DCS 系统操作台面及监视屏幕应保持整齐、整洁，操作键盘严禁堆放杂物、重物。

4.1.2 It is strictly forbidden to use personal computers or tablets on the DCS console during shift work.

当班期间严禁在 DCS 操作台使用个人电脑或平板。

4.1.3 The operator's personal water bottle/cup is strictly prohibited to be placed on the operation console to prevent the water bottle from being poured and spilled on the console table, which will affect the normal use of the DCS system.

操作员个人水杯严禁放置在操作台面上，防止水杯倾倒水洒在操作面板上，影响 DCS 系统的正常使用。

4.1.4 After filling out the operation records and after using personal notebooks, place them in the drawer of the DCS console.

运行记录及个人笔记本等物品用完后放置在 DCS 操作台抽屉里。

4.1.5 It is strictly forbidden to eat at the console area, and it is strictly forbidden to store fruits, food and other things irrelevant to work in the drawer of the console table.

严禁在操作台就餐，操作台抽屉严禁存放水果、食品等与工作无关的东西。

4.2 Requirements for DCS System Operations DCS 系统操作要求

4.2.1 During daily operations, it is strictly forbidden to use the numeric keys of the DCS console keyboard to manually input values. Only the Increase/Decrease keys on the control panel can be used for daily adjustments. The numeric keys of the DCS console keyboard are only suitable for emergency situations, where manually-entered values must first be verified before pressing the ENTER key.

日常运行期间，严禁用 DCS 操作台键盘数字键手动输入数值，只能使用控制面板的增速/减速键进行日常调节，DCS 操作台键盘数字键仅适用于紧急状态下，且主操在手动输入数值后，需进行核实后再按 ENTER 键。

4.2.2 The speed increase and speed decrease keys on the DCS operation console keyboard can cause exponential changes in output data when held down continuously. For routine adjustments, users should click intermittently rather than holding down the keys to prevent unintended drastic changes.

DCS 操作台键盘上的增速键和减速键在长按状态下，输出数据会出现倍数级改变，日常调节时应间歇点击，杜绝长按操作。

4.2.3 The DCS console keyboard is solely utilized for the switching between various operational interfaces and the muting of alarms, among other functions. Should any malfunction of the console keyboard be detected, it is imperative to promptly liaise with the Instrument Control department for resolution.

日常运行期间，DCS 操作台键盘仅用于各操作画面的切换以及报警的消音等。发现操作键盘有失灵现象及时联系仪表进行处理。

4.2.4 It is strictly forbidden to modify the P, I, D parameters of control points, the setpoint alarm values SVH and SVL, the upper and lower valve limits MVH and MVL, and the alarm values of each parameter of the DCS operating system without the permission of management personnel. If any unsuitable parameters are encountered during operation, modifications may only be made after reporting to and obtaining consent from the management personnel. Ensure a proper handover is conducted, and promptly update the dynamic alarm ledger with the new alarm values.

DCS 操作系统控制点的 P、I、D 参数、设定值报警值 SVH 和 SVL，阀位上下限 MVH 和 MVL，各参数报警值未经管理人员许可，严禁私自进行修改。运行中若出现不合适的，在联系汇报管理人员同意后方可进行修改，并做好交接，报警值及时在动态报警台账中进行登记更新。

4.2.5 During shift, any alarm notifications displayed on the alarm status bar of the DCS operation screen need to be confirmed within 30s, and then eliminated. This is to prevent the accumulation of alarms, which could cause failure to capture key alarm information, and missing the opportunities to address abnormal conditions in a timely manner .

DCS 操作画面报警状态栏，当班期间需在 30s 内对报警信息进行确认，然后再消除，防止累积过多，无法捕捉到关键报警信息，错过处理异常情况的时间。

4.2.6 DCS system management authority: a maximum of 1 unit is allowed to be operated with S2 operation authority (team leader), while the rest of the units having an operation authority of U1. It is strictly forbidden to modify the authority at will during shift.

DCS 系统管理权限：加裂气分装置以及煤柴油加氢装置最多允许 1 台处于班组长操作权限 S2，其余操作权限均为 U1，班组当班期间严禁随意进行权限的修改。

4.2.7 The DCS control window on the control panel must be closed timely after the adjustment is completed to prevent accidental input caused by accidental contacts with the keyboard shortcut keys.

DCS 调节器控制面板调节完毕后须及时关闭，防止误碰操作键盘快捷键导致异常输入。

4.2.8 It is prohibited to open multiple control valve control panels and place them on the same DCS screen.

禁止将多个控制阀阀控制面板打开并置于同一个 DCS 画面。

4.2.9 During normal operation, the team leader or central control supervisor is required to conduct a comprehensive screen inspection of the DCS interface every two hours. Any abnormalities detected should be promptly communicated to the relevant staff for immediate action. In the event of an anomaly within the system, the DCS alarm screen must be promptly accessed and reviewed by designated personnel to swiftly identify the root cause of the issue.

正常运行期间，各班组长或中控负责人每 2 小时对 DCS 画面进行全面巡屏，发现异常及时提醒岗位员工处理；当装置出现异常时，及时调出 DCS 报警画面专人查看，及时找出问题发生的原因。

4.2.10 Trainees in the central control room need to perform DCS-related operations under the supervision of skilled workers. They can operate independently only after passing the departmental acceptance test.

新进中控室学岗人员需在熟工的监督下进行 DCS 相关操作，通过部门考核验收后方可独立操作。

4.2.11 The DCS alarm sound is strictly prohibited to be turned off without authorization, and the DCS system alarm status and automatic control rate are included in the daily assessment.

DCS 报警声音严禁擅自关闭，DCS 系统报警及自控率纳入日常考核。

4.2.12 It is prohibited to place notebooks or other items on the keyboard. It is prohibited to fill out various records on the keyboard。

禁止将记录本或其他物品放置于操作键盘上，或在键盘上填写各类记录。

4.2.13 The process specialty is responsible for the daily management of DCS alarms and the equipment related parameters alarms are responsible by equipment specialty.

DCS 报警管理日常由工艺负责，设备相关参数报警由设备负责。

5   Inspection and Supervision 监督与考核

5.1 The process specialty of No.2 Refinery Department is responsible for the daily inspection and assessment, and shall be supervised by the department leaders.

炼油二部工艺专业负责日常检查考核，部门领导负责监督。

5.2 The assessment is conducted based on "No.2 Refinery Dept. Performance Appraisal Management Rules".

考核依据《炼油二部绩效考核细则》。

6   Supplementary Provisions 附则

6.1 The rules are managed by the No.2 Refinery Dept. For the unfinished matters, please refer to the company's professional management systems.

本细则由炼油二部归口管理，未尽事宜参照公司各专业管理制度等执行。

6.2 These rules are drafted by No.2 Refinery Dept.

本细则起草部门：炼油二部。

6.3 The interpretation right of this detailed rule is reserved by the Second Refining Department.

本细则解释权归炼油二部拥有。

6.4 The preparation and approval of the version of these rules are shown in Table 1:

本细则版本编制和审批情况见表 1：

Table 1 Details of Document Version Preparation and Approval
表 **1** 文件版本编制和审批情况

4	22/04/2025	Yang Fan 杨 帆	Sun Jian Huai 孙建怀	Sun Jian Huai 孙建怀
Version 版本	Date Issued 颁布日期	Prepared By 编制人	Reviewed By 审核人	Approved By 批准人