D6 - Description of Alarms

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1. General Definitions

1.1 General structure

hh:mm PRG SLABID [telid] Subject [Values] Consequences

hh:mm Time of apearing of the error message

PRG Short name for the Level2 program that invoked the message

SLABID Slab Identification. Only if the message is bound to a slab

telid Telegram id with which the program was invoked

Subject Error text shows what happened

Values Processes values if they are the reason for the message

Consequences Consequences to the fault

1.2 Responsibility

OPRM RM-Operator

OPFM FM-Operator

OPWB Weigher/Bander Operator

SY System Administrator

RO Roller

2. Alarm Messages

Primary Data invalid

Description: The piece data for slab identified by slab ID contain no or unplausible data.

Consequence: No pass schedule is generated

Responsibility: RO

Correction: Verify piece data and correct invalid data items; if it happens repeatedly, corrective actions at RHF, Caster or Level 3 have to be done (inform SY)

No Primary Data found

Description: The piece data for the slab identified by SLABID are missing.

NO LEVEL 2 ROLLING POSSIBLE !

Consequence: No finishing mill pass schedule is created.

Responsibility: RO

Correction: Have furnace map repaired and resent on Level 2 FURNACE computer

No Target Data Rmgeneral

Description: No Target data general present.

NO LEVEL 2 ROLLING POSSIBLE

in roughing mill and finishing mill.

Consequence: No finishing mill pass schedule is created.

Responsibility: SY

Correction: Create the specific roughing mill reference pass schedule.

No Target Data RM pass

No SetupData RMgeneral

No SetupData RM pass

Description: No Target data for RM are present.

NO LEVEL 2 ROLLING POSSIBLE

in roughing mill and finishing mill.

Consequence: No finishing mill pass schedule is created.

Responsibility: SY

Correction: Create the specific roughing mill reference pass schedule.

No SetupData Cooling

Description: The cooling recipe from the piece data is not valid.

NO COOLING SETUP IS SENT

Consequence: No cooling setup is sent.

Responsibility: SY

Correction: Create a cooling setup table

No general mill data

Description: The general model data record is missing

NO PASS SCHEDULE IS CREATED

Consequence: No level2 pass schedule

Responsibility: SY

Correction: Create the general model data record

No Steelgrade Reference

Description: The steelgrade described in the piece data is not yet prepared in the steelgrade reference table

Consequence: NO LEVEL2 PASS SCHEDULE for roughing mill and finishing mill

Responsibility: SY

Correction: Introduce the steel grade by creating a steel grade reference and the corresponding material law tables.

No Material Law

Description: For this steelgrade, the corresponding material law is not present.

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: SY

Correction: Create the corresponding material law

No Material Property

Description: For this steelgrade, the corresponding material property record is not present.

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: SY

Correction: Create the corresponding material property record

No DescalingTab

Description: For this steelgrade, the corresponding descaling table is not present.

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: SY

Correction: Create the corresponding descaling table

No IntCoolTab

Description: For this steelgrade, the corresponding interstand cooling table is not present.

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: SY

Correction: Create the corresponding descaling table

No Looper Table

Description: For this steelgrade, the corresponding looper tables are not present.

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: SY

Correction: Create the corresponding descaling table

No Rolling Strategy

Description: For this steelgrade, the corresponding rolling strategy is not present.

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: SY

Correction: Create the corresponding descaling table

No RollGeometry

Description: For this rolls, the corresponding roll geometry record is not present.

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: SY

Correction: Create the corresponding roll geometry record by resending the rolls from Level3

No Stretchcurve RM

Description: The millstretch record of the roughing mill is missing

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: SY

Correction: Create the millstretch record for roughing mill

No Stretchcurve FM

Description: A stretchcurve record of the finishing mill is missing.

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: SY

Correction: Create the stretchcurve finishing mill.

No Adaptors

Description: The short time adaptor record is missing.

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: SY

Correction: Create the short time adapter record.

No RollData

Description: For this rolls, the corresponding roll record is not present.

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: SY, OPFM

Correction: Check in “Roll Inventory” mask which roll is missing. Create the corresponding roll record by resending the rolls from Level3 or by creating the roll record in the mask “roll inventory”.

No StandData

Description: For a stand, the corresponding stand data record is not present.

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: SY

Correction: Create the corresponding stand data record.

No RollGeometry

Description: For this rolls, the corresponding roll geometry record is not present.

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: SY

Correction: Create the corresponding roll geometry record by resending the rolls from Level3

No General Data

Description: The general mill data record is not present.

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: SY

Correction: Create the general mill data record.

Edger Diameters unplaus

Description: The general mill data record contains unplausibe edger diameters.

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: SY, OPFM

Correction: Correct the edger diameters using the mask “Roll Inventory”.

Error accessing Data

Description: One or more of the necessary records form the memory data base is missing.

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: SY

Correction: Create the missing record(s).

Thickness not reached NO PASS SCHEDULE

Description: The pass schedule calculation was unable to create a pass schedule considering the limits.

If the switch “limit checks” in the mask “Finishing Mill Pass Schedule, advanced” is “off”, the only limits to be checked is the minimal and the maximal rolling speed of the stands.

Consequence: NO LEVEL2 PASS SCHEDULE for finishing mill

Responsibility: OPFM, RO

Correction: Check target data in “Primary Data” mask. When the reason is eliminated, calculate again.

Thickness increased by 0.xx STRIP THICK 0.yy

Description: The pass schedule calculation was unable to create a pass schedule for the given target thickness considering the mill limits. Instead, a pass schedule for an alternative strip thickness is sent.

If the switch “limit checks” in the mask “Finishing Mill Pass Schedule, advanced” is “off”, the only limits to be checked is the minimal and the maximal rolling speed of the stands.

Consequence: A pass schedule for an alternative (more heavy) gauge is sent.

Responsibility: OPFM, RO

Correction: With the Setting “limit switch OFF” and “Load Strategy”, you can calculate a pass schedule for the required exit thickness. In this switch setting, excessive rollforces and motorloads are not crosschecked by the model.

Poor MeasValues

Description: The measured values of speed and/or thickness are insufficient for a proper adaptation.

Consequence: No automatic adaptation is done for this bar

Responsibility: OPFM, RO

Correction: Check if thickness gauge is on and speed actual values are present. If the message repeats to occur, call system administrator for support.

No Calculated Values

Description: The adaptation did not find calculated values.

Consequence: No adaptation for this strip.

Responsibility: OPFM, RO

Correction: If this strip was rolled using a model setup (for this bar; check 1. for “Pass schedule sent” message” on Level2, 2. for error message on Level1) call system administrator.

No measured Values RM

No Calc, no measVal RM

Description: The measured values of the roughing mill area are missing.

Consequence: No automatic rollforce, torque and temperature adaptation is done for this strip.

Responsibility: OPFM, RO

Correction: If the strip was rolled in Level2 mode on Roughing Mill, call the system administrator for support.

Gauge not plausible

Description: The measured values of the X-Ray gauge are not plausible.

Consequence: No thickness adaptation is done for this strip.

Responsibility: OPFM, RO

Correction: Call the system administrator for support.

Com: Error send PSC

Description: A communication error occured sending the calculated pass schedule to the Level1 automation

Consequence: No Level2 rolling possible

Responsibility: OPFM, RO

Correction: Call the system administrator for support.

3. Information Messages

***hh:mm PRG SLABID thick* SpeedCorr *+c|+c|+c|+c|+c|+c* TempDev *dev* [oF]**

thick	strip target exit thickness in [in]
+c|+c|+c|+c|+c|+c	speed corrections for Stand F1 to F6 in %
dev	deviation of the calculated headend temperature to the maximum value of the target temperature on the pyrometer on the finishing mill exit side
Appears	after each successful pass schedule precalculation or pass schedule calculation.

***hh:mm PRG SLABID thick* SpeedCorr *+c|+c|+c|+c|+c|+c* TempDev *dev* [oF]**

thick	strip target exit thickness in [in]
+c|+c|+c|+c|+c|+c	speed corrections for Stand F1 to F6 in %
dev	deviation of the calculated headend temperature to the maximum value of the target temperature on the pyrometer on the finishing mill exit side
Appears	after each successful pass schedule precalculation or pass schedule calculation if speed adaptation is on.

hh:mm PRG SLABID thick GaugeCorr *+c|+c|+c|+c|+c|+c* TempDev *dev* [oF]

thick	strip target exit thickness in [in]
+c|+c|+c|+c|+c|+c	gauge corrections for Stand F1 to F6 in [mil]
dev	deviation of the calculated headend temperature to the maximum value of the target temperature on the pyrometer on the finishing mill exit side
Appears	after each successful pass schedule precalculation or pass schedule calculation if model is switched to gauge correction.

hh:mm PRG SLABID Pass Schedule Sent vF1 *dev grade thick/width*

dev	Speed variation from precalculated speed (only if *PRG* is the calculation). This speedup/slowdown of the mill refers to the speed of stand F1. The speedup/slowdown of the mill is be disabled by a flag in the “General Model Data”. To enable the speedup/slowdown, call the system administrator for assistance.
grade	steel grade of the strip
thick	strip target exit thickness in [in]
width	strip target exit width in [in]
Appears	when a pass schedule is sent: For calculation after the last load pass roughing mill if switch “Calculation” is on. For precalculation after furnace discharge or if the “Setup data Finishing Mill” mask is in “default” mode and the button “send pass schedule” is pressed.

hh:mm ADA SLABID vRoll *+d|+d|+d|+d|+d|+d -> +c+c|+c|+c|+c|+c* [%]

+d|+d|+d|+d|+d|+d	speed deviation from setpoint speed for Stand F1 to F6 in [%]
+c|+c|+c|+c|+c|+c	new total speed adaptors for Stand F1 to F6 in [%]
Appears	if speed adaptotion is on, after each bar that is rolled as soon as the speed adaptation is finished and valid.

hh:mm ADA SLABID msgId grade Adapt Thickness *+xx.xx->+yy.yy* [mil]

msgId	Number of the invoking telegram
grade	steel grade of the adapted strip
+xx.xx	previous thickness adapter in [mil]
+yy.yy	new thickness adapter in [mil]
Appears	if thickness adaptation is on, after each bar that is rolled as soon as the thickness adaptation is finished and valid.

4. Revision and Document Distribution List

REVISION LIST

Date	Version	Author	Description
95-Oct-25	V1.0	W.Bal.	first draft
95-Dec-30	V1.1	F.Dvo.	revision
96-Feb-28	as built	W.Bal.	as built

DISTRIBUTION LIST

Version	Receiver
as built	ARMCO