CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

25.214	CR	**055**	Current Version:	3.1.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑　　　　　　*↑ CR number as allocated by MCC support team*

For submission to: **TSG RAN #7**　　for approval **X**　　　strategic ☐　*(for SMG*
list expected approval meeting # here　　for information ☐　non-strategic ☐　*use only)*
　　　　↑

Form: CR cover sheet, version 2 for 3GPP and SMG　　The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

Proposed change affects:　　(U)SIM ☐　ME ☐　UTRAN / Radio **X**　Core Network ☐
(at least one should be marked with an X)

Source:	NEC		**Date:**	2000-1-13

Subject:	Correction of Adjustment loop description

Work item:	

Category:　F　Correction **X**　**Release:** Phase 2 ☐
　　　　　　　A　Corresponds to a correction in an earlier release ☐　Release 96 ☐
(only one category　B　Addition of feature ☐　Release 97 ☐
shall be marked　C　Functional modification of feature ☐　Release 98 ☐
with an X)　D　Editorial modification ☐　Release 99 **X**
　　　　　　　　　　　　　　　　　　　　　　　　　Release 00 ☐

Reason for change:	The current text is slightly different from the original proposal. This is caused by an error in the CR042 rev 1.

Clauses affected:	5.2.1.2.2

Other specs affected:

Other 3G core specifications	☐	→ List of CRs:	
Other GSM core specifications	☐	→ List of CRs:	
MS test specifications	☐	→ List of CRs:	
BSS test specifications	☐	→ List of CRs:	
O&M specifications	☐	→ List of CRs:	

Other comments:	

5.2.1.2.2 Adjustment loop

UTRAN may further employ adjustment loop, in which they change their calculated transmission powers *P(i)* in every slot according to the following equation:

$$P(i+1) = P(i) + S_{INNER}(i) + S_{ADJ}(i)$$

$$S_{ADJ}(i) = \text{sign}\{(1 - r)(P_{REF} - P(i))\}\ \min\{|(1 - r)(P_{REF} - P(i))|, S_{ADJ\_MAX}\}$$

where

P(i): calculated transmission power of UTRAN access point in dBm,

$S_{INNER}(i)$: inner loop control in dB,

$S_{ADJ}(i)$: adjustment loop control in dB,

sign{x}: sign function of the value *x*, i.e. +1 when x>0, 0 when x=0, and –1 when x<0,

r: convergence coefficient ($0 \le r \le 1$),

P_{REF}: reference transmission power in dBm,

S_{ADJ_MAX}: maximum power change limit by adjustment loop in dB.

~~The actual change in the transmitted power level due to the adjustment loop is a value which is the nearest allowed TPC step to $S_{ADJ}(i)$.~~ The actual transmission power level shall be a value which is the nearest allowed power level to *P(i)*. The parameters, *r*, P_{REF}, and S_{ADJ_MAX} shall be signalled by higher layers. S_{ADJ_MAX} shall be a multiple of the minimum step size $_{TPC,min}$ dB.