Subject: How does one change the Active Notch field in the Notch Mode page?

    In trying to implement the Notch Page (page 0C), it seems as though we
have a catch-22.
    - in order to change the active notch, you must send a Mode Select
      command with this new notch value in the active notch field. Before
      doing this, you cannot know the Starting Boundary and Ending Boundary
      field values, since this requires a Mode Sense AFTER the active notch
      is set.
    - You must send the entire page in the Mode Select, which means that
      you must know the Starting Boundary and Ending Boundary field values
      for this new notch, since they are unchangeable fields.

It certainly seems like a reasonable approach to take would be to have the
target ignore whatever the host puts in these Boundary fields when it does
a Mode Select to the notch page. However, this requires a change to the
wording in this section, which is underlined below.

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8.3.3.5. Notch and Partition Page

Table 8-54: Notch Page

Bit Byte	7	6	5	4	3	2	1	0
0	PS	Reserved		Page Code (0Ch)				
1				Page Length (16h)				
2	ND	LPN		Reserved				
3				Reserved				
4	(MSB)			Maximum Number of Notches				
5								(LSB)
6	(MSB)			Active Notch				
7								(LSB)
8	(MSB)			Starting Boundary				
11								(LSB)
12	(MSB)			Ending Boundary				
15								(LSB)
16	(MSB)			Pages Notched				
23								(LSB)

The notch page (Table 8-54) contains parameters for direct-access devices which implement a variable number of blocks per cylinder and support this page. Each section of the logical unit with a different number of blocks per cylinder is referred to as a notch.

.... descriptions of (PS) (ND) (LPN) (Max number of notches) ....

The active notch field indicates the notch that this and subsequent MODE SELECT and MODE SENSE commands shall refer to, until the active notch is changed by a later MODE SELECT command. The value of the active notch shall be greater than or equal to 0 and less than or equal to the maximum number of notches. An active notch value of zero indicates that this and subsequent MODE SELECT and MODE SENSE commands refer to the parameters that apply across all notches.

The starting boundary field indicates the beginning of the active notch or, if the active notch is zero, the beginning boundary of the logical unit. If the LPN bit is one, then the four bytes represent a logical block address. If the LPN bit is zero, then the three most significant bytes shall represent the cylinder number and the least significant byte shall represent the head number. This field shall be reported as unchangeable. For MODE SELECT, this field is ignored.

The ending boundary field indicates the ending of the active notch or, if the active notch is zero, the ending of the logical unit. If the LPN bit is one, then the four bytes represent logical block address. If the LPN bit is zero, then the three most significant bytes shall represent the cylinder number and the least significant byte shall represent the head number. This field shall be reported as unchangeable. For MODE SELECT, this field is ignored.

...(2 remaining paragraphs).