Hexavalent Chromium Regulation

SWRCB – DDW
The Statutory Mandates for the Maximum Contaminant Level (MCL)

- Section 116365(a) of the Health & Safety Code requires each primary drinking water standard to be set “at a level that is as close as feasible to the corresponding public health goal placing primary emphasis on the protection of public health...to the extent technologically and economically feasible...”
The Public Health Goal (PHG)

- The Office of Environmental Health Hazard Assessment (OEHHA) establishes the Public Health Goals (PHGs) through risk assessment.

- The PHG is established at negligible risk levels, considering cancer and non-cancer health effects.

- For hexavalent chromium, the final PHG of 0.02 ppb was based on no more than 1 person in a population of 1,000,000 developing cancer.
The MCL Regulation and Cr(IV)

- Section 116365 of California’s Safe Drinking Water Act requires an MCL to set as close to its PHG as technically and economically feasible.

- As a result, this led to an extensive cost-benefit analysis at various “candidate” MCLs, which took into consideration a number of factors, including but not limited to:
  - Occurrence data (Cr(IV) occurs naturally and is also man-made)
  - Treatment feasibility and costs
  - Costs of monitoring, analyses, and contaminant removal
  - Potential population exposed/affected
The MCL Regulation and Cr(VI) (cont.)

- Health and Safety Code § 116365(g) requires the Water Board to review its MCLs at least once every five years.

- The Water Board is to amend any standard if any of the following occur:
  - (1) Changes in technology or treatment techniques that permit a materially greater protection of public health or attainment of the PHG, or
  - (2) New scientific evidence indicates that the substance may present a materially different risk to public health than was previously determined.
The MCL is the legal threshold limit on the amount of a substance that is allowed in public water systems under the Safe Drinking Water Act. The MCL is enforceable based on regulation.

The PHG is a non-enforceable guideline.
OEHHA’s guide to PHGs states: “..., a PHG is **not** a boundary line between a ‘safe’ and ‘dangerous’ level of a contaminant, and drinking water can still be considered acceptable for public consumption even if it contains contaminants at levels exceeding the PHG.”
On July 1st, 2014 - An MCL of 10 ppb for hexavalent chromium became effective.

The MCL was the first and only in the country specific to hexavalent chromium.

In California, the new MCL has lowered the potential exposure to hexavalent chromium from drinking water by 80% and by 90% of the current federal limit.
Summary (cont.)

- SB385 - Authorizes the State Water Resources Control Board (SWRCB) to grant a limited period of time for affected water systems to work toward achieving compliance without being deemed in violation as long as strict safeguards are met.