

CHROMIUM SOIL CLEANUP CRITERIA

September 2008 Revised April 2010¹

The Department did not develop soil remediation standards for trivalent or hexavalent chromium as part of its Remediation Standards rules at N.J.A.C. 7:26D. The Department was awaiting the release of the final report from the National Toxicology Program (NTP) study evaluating hexavalent chromium as an oral carcinogen prior to proposing soil remediation standards. The NTP report was released in August 2008. The Department is reviewing the report and will make a determination regarding the adoption of remediation standards for chromium. Until such time, the Department will continue to use the following soil cleanup criteria for trivalent and hexavalent chromium as guidance.

Soil Cleanup Criteria for Chromium

Residential (mg/kg)						
Contaminant	CAS No.	Ingestion-Dermal	Inhalation	Allergic Contact Dermatitis (ACD)	Soil PQL	Residential Criterion
Trivalent Chromium	16065-83-1	120,000	NA	NA	2	120,000
Hexavalent Chromium	18540-29-9	240	270	Site-specific determination	2	240 or ACD value whichever is lower

Non-Residential (mg/kg)						
Contaminant	CAS No.	Ingestion-Dermal	Inhalation	Allergic Contact Dermatitis	Soil PQL	Non-Residential Criterion
Trivalent Chromium	16065-83-1	NA	NA	NA	2	Not Regulated
Hexavalent Chromium	18540-29-9	6,100	20	Site-specific determination	2	20

NA = Standard not available

¹ This revision corrects the CAS numbers that were mistakenly used for trivalent and hexavalent chromium in the September 2008 version. The CAS numbers were inadvertently switched.

Impact to ground water soil remediation standards must be developed on a site-specific basis for chromium. For Class II ground water, the ground water quality standard is 70 ug/l measured as total chromium but assuming that it is all in the form of hexavalent chromium.

In addition to the cleanup criteria listed above, all remedial actions at sites that have hexavalent chromium must comply with Commissioner Jackson's memorandum dated February 8, 2007. A copy of this memorandum can be found on the Department web site at

<https://www.nj.gov/dep/dsr/chromium/Memo%20Lifting%20the%20Chromium%20Moratorium.pdf>

More information about the Department chromium work group and chromium research efforts are available on the NJDEP web site at <http://www.state.nj.us/dep/dsr/chromium>.