

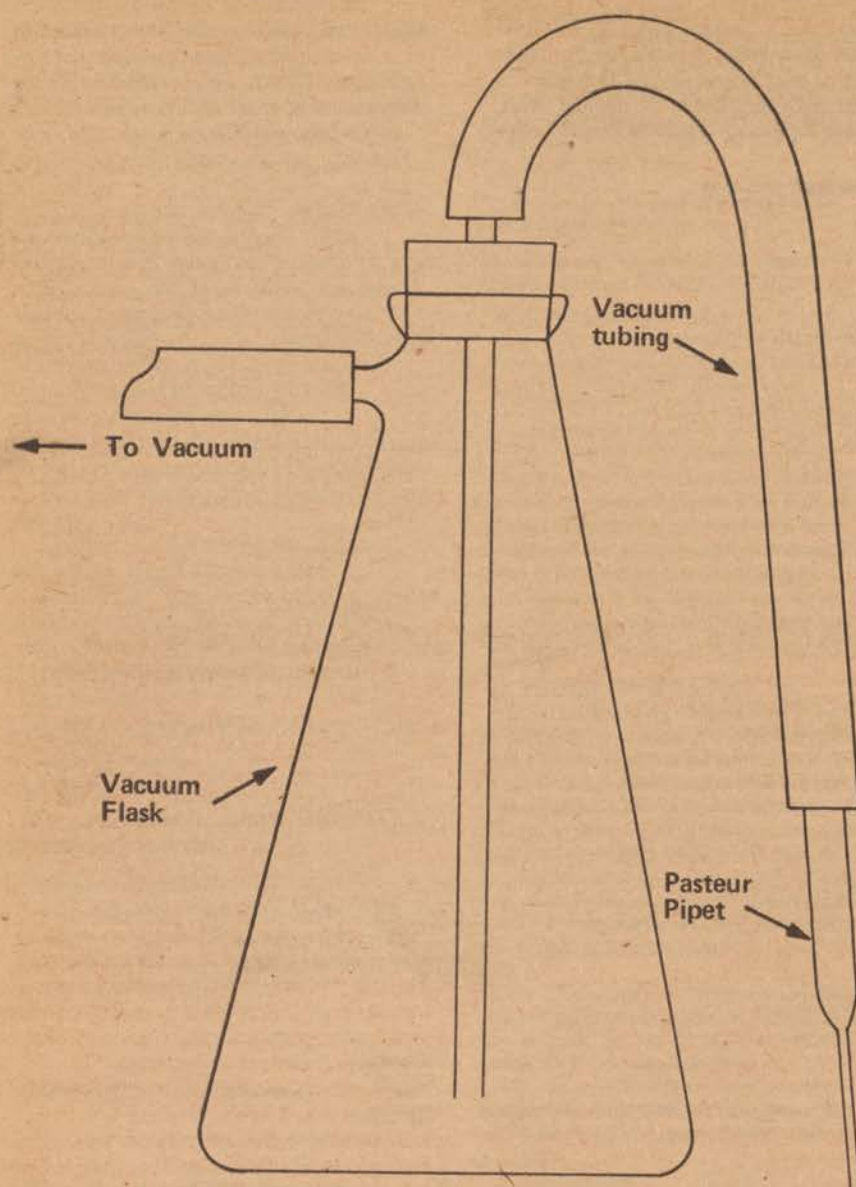


FIGURE 1

[FR Doc. 80-33307 Filed 10-29-80; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY**40 CFR Part 261****[SW FRL 1639-1b]****Hazardous Waste Management System: Identification and Listing of Hazardous Wastes****AGENCY:** Environmental Protection Agency.**ACTION:** Interim Final Rule and Request for Comments.

SUMMARY: This rule amends § 261.4 of the Resource Conservation and Recovery Act (RCRA) hazardous waste management regulations by temporarily excluding from hazardous waste status wastes which presently are deemed hazardous solely due to the presence of chromium, but contain trivalent chromium exclusively (or nearly exclusively), are generated from processes which use trivalent chromium exclusively (or nearly exclusively), and are typically and frequently managed in non-oxidizing environments. Specific wastes excluded under this standard are tannery wastes listed as hazardous in § 261.32 (EPA Hazardous Waste Nos. K053 to K058); waste leather scrap from the leather tanning industry, the shoe manufacturing industry and other leather product manufacturing industries; and wastewater treatment sludges from the production of TiO_2 pigment using chromium-bearing ores by the chloride process listed as hazardous in § 261.32 (EPA Hazardous Waste No. K074).

Other wastes also may be temporarily excluded if they meet the standard set out above. To be eligible for a temporary exclusion, a waste generator or group of generators must petition the Agency to grant their waste a temporary exclusion and show why their waste meets the temporary exclusive standard. Petitions will be processed under the procedures set forth in § 260.20 of the hazardous waste regulations. Generators of wastes already determined to be within the temporary exclusion need not file petitions.

This amendment is taken in conjunction with two other regulatory actions. The first is a proposal to amend the characteristic of EP toxicity to apply only to hexavalent chromium. These temporary exclusions will remain in effect only until that proposed amendment is acted upon finally. The second regulatory action is a final delisting of certain chromium-bearing waste streams. The temporary exclusion provision is necessary to allow these delistings to have their intended effect, and therefore is being adopted as an interim final regulation.

DATES: Effective Date: This amendment, in the form published today, is interim final Agency action. It becomes effective on November 19, 1980.

EPA will accept public comments on this interim final regulation until December 30, 1980. Any person may request a hearing on this interim final rule by filing a request with John P. Lehman, whose address appears below, by November 20, 1980. The request must contain the information prescribed in § 260.20(d) of this chapter.

ADDRESSES: Comments should be sent to Docket Clerk, Office of Solid Waste (WH-562), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460.

Requests for hearing should be addressed to John P. Lehman, Director, Hazardous and Industrial Waste Division, Office of Solid Waste (WH-565), U.S. Environmental Protection Agency, Washington, D.C. 20460. Communications should identify the regulatory docket number "Section 3001/Temporary Exclusion."

The public docket for this interim final rule is located in Room 2711, U.S. Environmental Protection Agency, 401 M St., SW., Washington, D.C. 20460 and is available for viewing from 9 a.m. to 4 p.m., Monday through Friday, excluding holidays.

FOR FURTHER INFORMATION CONTACT: Matthew A. Straus, Office of Solid Waste (WH-565), U.S. Environmental Protection Agency, 401 M St., SW., Washington, D.C., (202) 755-9187.

SUPPLEMENTARY INFORMATION:**I. Temporary Exclusion From Subtitle C Regulation for Certain Chromium-Bearing Wastes**

The Agency today has proposed to amend the characteristic of EP toxicity in 40 CFR 261.24 to apply to hexavalent rather than to total chromium (published elsewhere in Part XI of this issue of the *Federal Register*). The Agency also has taken final regulatory action today with respect to a number of hazardous waste listings (published elsewhere in Part XI of this issue), including the delisting of certain trivalent chromium-bearing waste streams. The present action is necessary to allow these other actions to have their intended effect. Thus, until the characteristic of EP toxicity is amended finally, all wastes remain subject to the existing standard based upon total chromium. We are concerned that the characteristic as it now stands identifies as hazardous certain trivalent chromium-bearing wastes which are unlikely to create a substantial present or potential hazard to human health or the environment when mismanaged,

imposing significant regulatory burden without achieving any statutory purpose. A temporary exclusion for this limited class of wastes is needed to prevent this result.

We consequently will exclude temporarily from hazardous waste status certain chromium-bearing wastes. It must be emphasized that this exclusion will apply only insofar as the wastes would be hazardous because they fail the EP toxicity characteristic for chromium or because they are listed solely because of their chromium content. If they are hazardous for any other reason (*i.e.*, they fail the EP characteristic for any constituent but chromium, fail any other characteristic, or are listed for any other reason) they remain in the RCRA control system. The factors which must be present for a chromium-bearing waste to qualify for this temporary exclusion are:

- The waste contains trivalent chromium exclusively (or nearly exclusively);
- The waste is generated from an industrial process which uses trivalent chromium exclusively (or nearly exclusively), which process does not generate hexavalent chromium; and
- The waste is typically and frequently managed in non-oxidizing environments.

If a generator or an industry-wide group of generators can demonstrate that its (or their) wastes satisfy these prerequisites, the Agency will grant the waste a temporary exclusion and the waste will not require subtitle C management during an interim period. When the amended EP toxicity characteristic becomes final, this temporary exclusion will no longer be in effect, and waste generators will have to analyze their EP extracts for the presence of hexavalent chromium.

Our basis for selecting these factors and our views as to how these factors will be applied are as follows. In light of our decision to distinguish between tri- and hexavalent chromium for purposes of subtitle C regulation, wastes containing exclusively or nearly exclusively trivalent chromium may well not be hazardous. There is, however, a problem in demonstrating the absence of hexavalent chromium, due to the present lack of an analytical method which distinguishes between trivalent and hexavalent chromium at low ppm concentrations in waste extracts. (The Agency today proposed adoption of such a method, but is undertaking further study of the method before final promulgation.) In evaluating requests for temporary exclusions, we therefore will regard waste and waste extract

analytical data for chromium (VI) as highly relevant, but not as determinative. We also contemplate that generators will demonstrate the absence of hexavalent chromium by using process chemistry information, *i.e.*, showing that the industrial process generating the waste does not generate hexavalent chromium, so that hexavalent chromium will not be found in the wastes or will be present only in minimal concentrations.¹ In addition to process information, leachate and groundwater monitoring data and EP extract analyses are highly probative, since if chromium is shown to be present in substantially immobile form, the likelihood is that it is present in the trivalent state.

We also believe that at present there is no adequate assurance that chromium-bearing wastes do not contain potentially harmful concentrations of hexavalent chromium unless the industrial process itself is trivalent chromium-based. Although we are aware that the standard method of treatment of hexavalent chromium-containing wastewaters is to reduce the chromium and to precipitate it as chromium (III) hydroxide, we believe that this process is often incomplete, absent a strong economic incentive to fully reduce all chromium present. Certainly, we believe it would be highly imprudent to exclude from regulation these wastes, even temporarily, absent much greater assurance that they do not contain potentially dangerous amounts of hexavalent chromium.

Finally, to assure that any trivalent chromium which migrates from the waste will not oxidize to the hexavalent state, we will require that the wastes be managed typically and frequently in non-oxidizing environments. A non-oxidizing environment is one in which there is either a relative lack of oxygen or one which contains reducing agents sufficiently strong to cause reduction of the contaminant in question. These conditions ordinarily are present in landfills and surface impoundments. (Ham, R. A., et al., 1978, Background Study on the Development of a Standard Leaching Test.)

The Agency believes that site monitoring data is particularly important in demonstrating that chromium-bearing wastes are being managed in non-oxidizing environments. Thus, a demonstration by means of leachate and groundwater monitoring data that chromium remains essentially

immobile in its actual management environment indicates that chromium remains in the insoluble and strongly adsorbed trivalent state, and therefore is not being oxidized (*see e.g.*, Comments of Berwick Sewer District, July 16, 1980; Comments of Alley, Young & Baumgartner, July 11, 1980 where appropriate leachate and groundwater monitoring data is presented).

II. Wastes Meeting the Temporary Exclusion Factors

We are presently aware of three groups of wastes meeting the temporary exclusion factors. The first group are the tannery wastes listed as hazardous in § 261.32 (EPA Hazardous Waste Nos. K053-058), and any other waste scrap leather generated by the leather tanning industry. As shown in the comments of many individual tanners and the comments of the Tanners' Council of America, these wastes contain nearly exclusively trivalent chromium. The industrial process generating the waste likewise utilizes trivalent chromium. Hides, in fact, cannot be tanned successfully with hexavalent chromium. Tanners thus either use trivalent chromium as a tanning agent, or, should trivalent chromium be unavailable, use hexavalent chromium and reduce it so that the tanning process can be completed. In either case, there appears to be an overwhelming commercial incentive to keep hexavalent chromium out of the process and hence out of the process wastes.

These wastes furthermore ordinarily are managed in non-oxidizing landfill environments. We therefore believe that an adequate showing has been made to justify the temporary exclusion of these wastes due to their chromium content.²

The second group of wastes within the temporary exclusion is waste leather scrap from the shoe manufacturing and other leather product manufacturing industries.³ These wastes are substantively identical to tannery wastes (being composed of the same trivalent chromium-tanned hides involved in the tanning process), and so

¹ Since these wastes were listed for reasons in addition to their chromium concentrations, the temporary exclusion for chromium does not by itself remove them from the hazardous waste management system. We are, however, delisting tannery wastes for these additional factors in an action taken elsewhere in today's Federal Register. The net result of these actions will be that these tannery wastes will no longer be listed, will not be considered hazardous if they fail the EP toxicity characteristic for total chromium, but will be hazardous if they fail the EP toxicity characteristic for any other constituent, or fail any other characteristic.

² These wastes were not listed, but some may fail the test for the characteristic of EP toxicity for chromium.

contain trivalent chromium exclusively or nearly exclusively. These wastes also are ordinarily managed in landfills, and so are unlikely to be oxidized.

The third group of wastes within the temporary exclusion are wastewater treatment sludges from the production of TiO₂ (titanium dioxide) pigment using chromium bearing ores by the chloride process (EPA Hazardous Waste No. K074). The chromium in the process effluent is trivalent, arising directly from the entirely trivalent component of the rutile or ilmenite ores used as a raw material. At no stage of the manufacturing process is there an opportunity for oxidation of the trivalent chromium. The resultant sludges thus are expected to contain only trivalent chromium. (*See Comments of E.I. du Pont de Nemours & Co.*, September 15, 1980, pp. 8-10 describing the TiO₂ manufacturing process, and showing that only chromium (III) is present; leachate data submitted in these comments likewise tends to show that only trivalent chromium is present.) These wastes are usually disposed of in landfills or by ocean dumping. One plant uses a lined lagoon and one uses deep-well injection. (U.S. EPA Hazardous Waste Listing Background Document, July 7, 1980, pp. 87-89.) These disposal situations do not offer opportunity for the oxidation of the chromium component. (Ham, 1979; Fukai, R., 1967, Valency State of Chromium in Sea Water, *Nature* 213: 901).

III. Procedures for Obtaining a Temporary Exclusion

The temporary exclusion is not limited to the wastes discussed specifically in Part II above. Other wastes also may meet the temporary exclusion factors and will be excluded if a proper showing is made to the Agency. Eligibility for a temporary exclusion may be requested by filing a petition for rulemaking under § 260.20(a). Petitions may be filed by individual generators, or on an industry-wide basis. Each petition must demonstrate why the wastes in question meet the temporary exclusion standards. Petitions then will be processed by the Agency in accord with the procedures set forth in § 260.20 (c)-(e). It should be noted that generators of the wastes which already have been determined to be within the temporary exclusion (*i.e.*, the wastes discussed in II. above) are not required to petition the Agency.

IV. Interim Final Promulgation

The temporary exclusion for this limited class of chromium-bearing wastes is being promulgated in interim final form. Thus, the three types of

¹ Hexavalent chromium concentrations below 5 mg/l certainly will be considered minimal. This level is based on the maximum concentration level for hexavalent chromium to be contained in the amended characteristic of EP toxicity.

wastes now within the temporary exclusion are no longer subject to the hazardous waste regulations based on their chromium content. The provision also is final for purposes of the 90-day petition deadline under Section 7006. The public will, however, have an additional opportunity to comment on the provision before it is published as a "final final" regulation.

The Agency does not take this procedural course lightly, but believes that unusual circumstances justify our action. First, many affected persons effectively have had the opportunity to comment on the substance of the provision by virtue of their comments on the interim final portions of the May 19 and July 16 regulations, principally the hazardous waste listings in § 261.32. Thus, much of the data supporting today's action was supplied in comments submitted by the tanning industry and (to a lesser extent) the titanium dioxide production industry. We therefore believe that the policy underlying the prior notice and comment requirement has been substantially satisfied here.

Second, as already noted, immediate action is necessary to give effect to final regulatory action taken today delisting waste streams from the tanning and TiO_2 production industries. These delisting actions present no prior notice and comment issues because the listings themselves were not yet promulgated in final form. However, certain of the delisted wastes might still fail the EP for total chromium, and would consequently remain in the system until the EP toxicity characteristic is amended finally. Immediate promulgation of the temporary exclusion consequently is necessary to allow the delistings to have their intended consequence.

Finally, we believe that use of advance notice and comment procedures would be impracticable and contrary to the public interest, and therefore that good cause exists for adopting these regulations in interim final form (see 5 U.S.C. 553(b)(B)). Although the "good cause" exception is narrow, courts have emphasized that "(i)t is an important safety value to be used where delay would do real harm." *U.S. Steel Corp. v. EPA*, 595 F.2d 207, 214 (5th Cir., 1979). We believe delay in promulgating the temporary exclusion could cause significant harm to the regulated community, particularly to the tanning industry. The tanners have indicated that there is a severe shortage of hazardous waste landfill capacity, especially in New England where many tanneries are located, so that disposal costs will increase very substantially

even if hazardous waste management is required for only a short period. (See, e.g., Comments of A. C. Lawrence Leather Co., July 10, 1980.) Courts have approved immediate promulgation of rules in like circumstances where failure to implement regulations would cause severe market dislocations. See *De Rieux v. Five Smiths, Inc.*, 499 F.2d 1321, 1332 (TECA), cert. denied 419 U.S. 896 (1974) (promulgation of government price controls); *Reeves v. Simon*, 509 F.2d 455, 458-59 (TECA 1974), cert. denied, 420 U.S. 991 (1975) (gasoline station fuel allocation regulations). The same principle applies here.

Dated: October 27, 1980.

Douglas M. Costle,
Administrator.

Title 40 CFR Part 261 is revised as follows:

1. In § 261.4, Exclusions, paragraph (b)(6) is added to read as follows:

§ 261.4 Exclusions.

* * * * *

(b) * * *

(6) (i) Wastes which fail the test for the characteristic of EP toxicity because chromium is present or are listed in Subpart D due to the presence of chromium, which do not fail the test for the characteristic of EP toxicity for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:

(A) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium; and

(B) The waste is generated from an industrial process which uses trivalent chromium exclusively (or nearly exclusively) and the process does not generate hexavalent chromium; and

(C) The waste is typically and frequently managed in non-oxidizing environments.

(ii) Specific wastes which meet the standard in (i)(A), (B) and (C) (so long as they do not fail the test for the characteristic of EP toxicity, and do not fail the test for any other characteristic) are

(A) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/ wet finish; hair save/chrome tan/retan/ wet finish; retan/ wet finish; no beamhouse; through-the-blue; and shearing.

(B) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/ wet finish;

hair save/chrome tan/retan/ wet finish; retan/ wet finish; no beamhouse; through-the-blue; and shearing.

(C) Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/ wet finish; hair save/chrome tan/retan/ wet finish; retan/ wet finish; no beamhouse; through-the-blue.

(D) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/ wet finish; hair save/chrome tan/retan/ wet finish; retan/ wet finish; no beamhouse; through-the-blue; and shearing.

(E) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/ wet finish; hair save/chrome tan/retan/ wet finish; retan/ wet finish; no beamhouse; through-the-blue; and shearing.

(F) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/ wet finish; hair save/chrome tan/retan/ wet finish; and through-the-blue.

(G) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.

(H) Wastewater treatment sludges from the production of TiO_2 pigment using chromium-bearing ores by the chloride process.

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40 CFR Part 261

[SW FRL 1639-1c]

Hazardous Waste Management System; Identification and Listing of Hazardous Wastes

AGENCY: Environmental Protection Agency.

ACTION: Final action amending interim final regulation.

SUMMARY: This regulation removes from the list of regulated hazardous wastes the wastes from the leather tanning industry and the titanium dioxide production industry which were listed as hazardous in interim final form in the Federal Register on May 19, 1980 (45 FR 33124) and July 16, 1980 (45 FR 47834). The preamble also discusses why other listed waste streams containing chromium will still be listed due to the presence of chromium. This action is

being taken as a result of other regulatory action taken concerning the regulation of chromium-bearing wastes under the hazardous waste management program in documents published elsewhere in this Part XI of this Federal Register.

EFFECTIVE DATES: This action is effective on publication.

ADDRESSES: The public docket for this regulation is located in Room 2711, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, D.C. 20460, and is available for viewing from 9 a.m. to 4 p.m., Monday through Friday, excluding holidays.

FOR FURTHER INFORMATION CONTACT: Matthew A. Straus, Office of Solid Waste (WH-565), U.S. Environmental Protection Agency, 401 M St., S.W., Washington, D.C. 20460, (202) 755-9187.

SUPPLEMENTARY INFORMATION:

I. Decision To Delist Wastes From TiO_2 Production and From the Leather Tanning and Finishing Industry

In other regulatory action taken today, the Agency has indicated that its principal regulatory concern in regulating chromium-bearing wastes under the hazardous waste management program is hexavalent rather than total chromium. The Agency consequently has reviewed all of the interim final and proposed waste listings in 40 CFR Part 261, Subpart D which listed chromium as a waste constituent of concern, and reevaluated these wastes to determine if they should continue to be listed due to the presence of chromium. We have decided that two groups of wastes, those from titanium dioxide production by the chloride process, and those from leather tanning and finishing, no longer should be listed due to chromium. We have further determined that leather tanning and finishing industry wastes also should not be listed for any other basis at the present time. We consequently are delisting both groups of wastes.¹

We also reviewed all of our other listings of chromium-bearing wastes (except for those wastes for which the comment period has been extended). We believe that all of these other wastes are likely to contain significant concentrations of hexavalent chromium, and therefore we are not amending our initial listings. We note further that many of these wastes are listed for constituents other than chromium, and our actions today do not in any way affect these additional bases for listing.²

¹ We also are removing any reference to these wastes from Appendix VII to Part 261.

² We also note that the Agency may choose not to finalize the listing of certain of these waste streams for independent reasons when finalizing the May 19 interim final list of hazardous wastes.

A. Wastes Generated From TiO_2 Production

On July 16, 1980, the Agency adopted as an interim final listing, under 40 CFR § 261.32 wastewater treatment sludges from TiO_2 production via the chloride process (see 45 FR at 47834). On reevaluation, we have decided not to list this waste stream because it is derived from a trivalent chromium-based process and contains trivalent chromium exclusively or virtually exclusively. The titanium dioxide production process results in a waste stream which contains chromium (III) chloride. The presence of this compound results from the fact that the rutile and ilmenite ores used as raw materials can contain as much as 45% chromium (III) oxide. The chromium-bearing waste stream from this process thus contains chromium only in the trivalent form, and the resulting wastewater sludges therefore are not expected to contain any hexavalent chromium.

B. Wastes Generated by the Leather Tanning and Finishing Industry

The Agency's May 19 interim final waste listings included seven waste streams generated by the leather tanning and finishing industry (EPA Hazardous Waste Numbers KO53-059). These wastes were listed for the presence of chromium, chromium and lead, and (in the case of the wastewater treatment sludges generated by plants in certain subcategories) chromium and reactivity. With respect to chromium, the Agency has determined that these wastes contain exclusively or virtually exclusively trivalent chrome and therefore do not warrant listing on this basis. The leather tanning process depends on the chemical reaction of trivalent chromium with the free amine and hydroxyl groups on the hides' protein chains. This reaction will not occur if hexavalent chromium is used, so that there is a very strong commercial justification for the absence of hexavalent chromium in these wastes. Although it is true that if the trivalent tanning agent is not readily or economically available, tanneries use hexavalent chrome as a starting material, the chromium is then reduced to the trivalent state either before use in the tanning process or *in situ* during the tanning process (a "two bath" process now largely obsolete). Both economics and the recognized dangers inherent in the unnecessary risk in handling hexavalent chromium serve to assure the conversion to the trivalent form.³

³ Thus, in one tanning facility visited by the Agency, when trivalent chromium is not available, a twenty percent excess of reductant is added to the

The wastes resulting from the tanning process, therefore, are overwhelmingly in the trivalent state. In addition, leachate and groundwater monitoring data submitted by individual tanners indicate that the chromium contained in these wastes has low migratory potential under most waste management conditions, and also that it has very limited mobility should migration occur, confirming that these wastes contain chrome (III), rather than the highly mobile hexavalent chromium.

Certain tanning wastes were listed because of the presence of lead. Substantial data submitted by industry indicate convincingly, however, that lead is not typically used in the tanning process, nor is it found in process wastes, in regulatorily significant amounts or concentrations. We consequently believe continued listing on this basis is inappropriate. Furthermore, these wastes remain subject to the EP toxicity characteristic, so that those wastes containing excessive concentrations of lead will still be brought into the hazardous waste management system.

Two wastewater treatment sludges were listed as hazardous due to reactivity, more specifically because of the possibility of release of harmful concentrations of hydrogen sulfide gas under usual waste management conditions. Historical waste management data submitted by industry indicates, however, that harmful release of hydrogen sulfide does not occur typically and frequently in waste management practice. Rather, this problem is more likely to occur during the tanning process, prior to waste generation. (Comments of Robert M. Lollar, Technical Director, Tanners' Council of America, August 12, 1980.)

We have determined to delist these sludges for reactivity. We again note, however, that the wastes remain subject to the reactivity characteristic, so that these wastes should be deemed hazardous if harmful hydrogen sulfide generation occurs, or has occurred, during waste management. For example, if a generator is aware of prior dangerous release of hydrogen sulfide in managing these sludges, for example from storing these sludges in enclosed tanks, EPA must be notified that the wastes are reactive, and the wastes must be managed pursuant to Subtitle C regulatory controls. We also note that the Agency is working to quantify the present provision in the reactivity characteristic governing hydrogen sulfide and hydrogen cyanide-generating

hexavalent chromium to ensure that reduction will go to completion.

wastes (§ 261.23(a)(5)), and that these sludges will be subject to the revised characteristic when promulgated.

EPA is also investigating the possibility that these tannery wastes may be hazardous for reasons other than those for which they were listed originally. A possible source of waste contamination is use of hexavalent chromium-containing chrome pigments, and of benzidine and benzidine congener dyes in the finishing process. For example, dyes derived from the chemicals benzidine, 3,3'-dimethylbenzidine, and 3,3'-dimethoxybenzidine comprise approximately one fourth of the 3.1 kkg of dyes used by the tanning industry (MRI, 1979, "A Preliminary Materials Balance for Dyes and Pigments from Benzidine and Three Benzidine Derivatives." EPA Contract No. 68-01-3896, Draft Final Report, August 31, 1979), and may be present in these wastes. We are concerned about the potential carcinogenicity of the dyes themselves, and about the possible reduction of the dyes in the waste streams by heat, light, and chemical reducing agents, or their metabolism *in vivo* to the carcinogenic parent compounds benzidine, 3,3'-dimethylbenzidine and 3,3'-dimethoxybenzidine. In addition, certain biocides (notably phenolic derivatives) are used in the tanning process, and may contaminate process wastes. The Agency solicits information as to these practices, as to concentrations of these materials and their breakdown products in process wastes, and as to whether the wastes thereby should be considered to be hazardous.

II. Retention of Chromium as a Waste Constituent of Concern in Other Hazardous Waste Listings

Certain of the other May 19 and July 16 interim final and proposed waste listings are of wastes containing chromium as a waste constituent of concern. (See 45 FR 33123-124, 33137; and 45 FR 47833-834, 47836). We have reevaluated these listings to determine if the wastes should continue to be listed due to the presence of chromium.⁴ It is our conclusion that all of these chromium-bearing waste streams should continue to be listed as hazardous due to chromium content because all derive from processes which use or produce a waste stream which contains hexavalent chromium. The basis for our conclusion is set out below.

⁴This discussion does not apply to chromium-containing waste streams for which the comment period has been extended. Industrial painting wastes, paint manufacturing wastes, and wastes from ferroalloys production are in this category.

The chromium-containing waste streams we have listed in interim final form or have proposed for listing are generated in the manufacture of inorganic pigments (EPA Hazardous Waste Nos. K002-008), in petroleum refining (EPA Hazardous Waste Nos. K048-051), in the manufacture of iron and steel (EPA Hazardous Waste Nos. K061-063), in secondary lead smelting (EPA Hazardous Waste No. K069), in electroplating (EPA Hazardous Waste No. F006), and in ink formulation (EPA Hazardous Waste No. K086). The chrome pigment process wastes are believed to contain hexavalent chromium because the production process requires the use of chromates, which are necessarily hexavalent chromium-containing compounds. Electroplating industry wastes likewise derive from processes using chromates, and so also are expected to contain hexavalent chromium. Chromate (Cr (VI)) pigments are constituents of the listed ink formulations, so that process wastes also should contain hexavalent chromium.

The various listed petroleum refining wastes likewise use chromates, in this case as corrosion inhibitors in cooling towers. The listed wastes from this industry are all derived from cooling tower wastewater streams, and thus are expected to contain hexavalent chromium.

The iron and steel industry and secondary lead industries generate chromium-containing emission control dusts and sludges. These production processes involve oxidative processes occurring at elevated temperatures, conditions known to cause oxidation of chromium (III) to chromium (VI). Spent pickle liquor, another listed waste from the steel industry, likewise is generated in oxidizing conditions (the pickling operation itself), and so will contain chrome (VI).

We are aware that treatment of chromium-containing wastewaters most often consists of the reduction of hexavalent chromium to the trivalent state and the subsequent precipitation of chromium (III) hydroxide. If the reduction is not carried out to completion, however, the hexavalent chromium may be entrained in the chromium (III) hydroxide precipitate. Further, in light of the large concentrations of chromium present in these wastewater streams, and the very small concentrations of the carcinogen hexavalent chromium needed to make a treatment sludge hazardous, we do not believe that the chromium in these wastewater streams will be fully reduced, so that these wastes remain

capable of causing substantial harm if mismanaged.

Dated: October 27, 1980.

Douglas M. Costle,
Administrator.

Title 40 CFR, Part 261 is amended by deleting from the lists of hazardous wastes contained in § 261.32 the following waste streams:

§ 261.32 [Amended]

K053—Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearing.

K054—Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearing.

K055—Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.

K056—Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearing.

K057—Wastewater treatment sludge generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearing.

K058—Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; and through-the-blue.

K059—Wastewater treatment sludges generated by the following subcategory of the leather tanning and finishing industry: hair save/non-chrome tan/retan/wet finish.

K074—Wastewater treatment sludges from the production of TiO₂ pigment using chromium-bearing ores by the chloride process.

[FR Doc. 80-33869 Filed 10-29-80; 8:45 am]

BILLING CODE 6560-30-M

40 CFR Part 265

[SW FRL 1623-7]

Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities

AGENCY: Environmental Protection Agency (EPA).