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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

MEMORANDUM

DATE: April 30, 2001

SUBJECT: Request for a Removal Action
Cal-Tech Metal Finishers, Oakland, CA

FROM: Tom Dunkelman, OSC *Tom*
Office of Emergency Response (SFD-6)

TO: Keith A. Takata, Director
Superfund Programs (SFD-1)

THRU: Terry Brubaker, Chief *Terry* *S.H.01*
Office of Emergency Response (SFD-6)

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of the proposed Removal Action described herein at the Cal-Tech Metal Finishers property, located at 841 31st Street in Oakland, California (the "Site").

Conditions presently exist at the Site which, if not addressed by implementing the response action documented in this Action Memorandum, may lead to off-site migration and release of contaminants that may pose an imminent and substantial endangerment to the public health or welfare or the environment.

II. SITE CONDITIONS AND BACKGROUND

Site Status: Non-NPL
Category of Removal: Emergency
CERCLIS ID: TBD
SITE ID: TBD
Nationally Significant or Precedent Setting: No
Mobilization Date: TBD

A. Site Description

1. Physical Location

The Site is located at 841 31st Street in Oakland, CA. The Site is located in a residential neighborhood, and is immediately surrounded by residences.

2. Site characteristics

According to the City of Oakland (the "City"), the original building at the Site was constructed in the early 1900's and was used as a furniture warehouse for many years. At some point, believed to have been at least 30 years ago, an electroplating shop began operations at the Site. According to the City, it has revoked the occupancy permit for the Site. Furthermore, the State has not issued a permit for storage or handling of hazardous wastes.

The Cal-Tech Metal Finishers Inc. ("Cal-Tech") facility consists of four interconnected, corrugated steel warehouse-type buildings and an adjacent fenced lot. The interior of the facility includes several different plating lines each with numerous vats, chemical storage areas, a metal polishing area, drying areas, and an office. A portion of the facility contains a second floor, which includes a cyanide treatment system and additional chemical storage areas. The fenced lot contains a water treatment system, numerous chemical storage containers, several trucks and miscellaneous debris.

The plating facility is not currently operating. On April 9, 2001, the City Fire Marshal issued a Cease and Desist Order requiring Cal-Tech to clean up the Site and conform with applicable building codes. This order required Cal-Tech to submit a work plan to achieve compliance within 15 days; however, Cal-Tech requested an extension of 24 months, which the City denied. On April 24, 2001 the City Fire Marshal contacted EPA, and said that Cal-Tech had not submitted a work plan within the time required by the City's order. Consequently, the City considers the property owner in violation of the Order. Cal-Tech has abandoned the Site, and has represented to EPA that it lacks the ability to remove the remaining hazardous substances from the Site. On April 26, 2001, the Oakland City Fire Marshal formally requested in writing for EPA to provide assistance at the Site.

3. Removal site evaluation

On April 26, 2001 OSC Dunkelman and START personnel conducted a removal site evaluation, during which the following observations were made.

- Cal-Tech had relabeled some containers in the oxidizer closet for reuse, sometimes incorrectly, which caused confusion regarding their actual contents. Additionally, there are two 15 gallon poly containers labeled acetic acid (handwritten), which could react violently if commingled with oxidizers.

- The cyanide closet is next to an area containing 47 5-gallon containers of aqueous chromic trioxide. Chromic trioxide is a strong oxidizer and, in aqueous form, a strong acid. Additionally, a few feet past the cyanide closet and the chromic trioxide is a nitric acid vat. Should these mix, hydrogen cyanide gas will be released.

- In the center plating room are located five vats ranging from 350 - 650 gallons, which contain various cyanide solutions immediately adjacent to three vats of various metallic acids, also ranging from 350 - 650 gallons. The close proximity of these highly incompatible materials presents an imminent threat of a hydrogen cyanide gas release. Should a breach in any tank occur, a massive release of hydrogen cyanide gas could result.

- A large poly container of calcium hydroxide is stored near acids in the outdoor storage area. These materials are incompatible, posing the threat of a violent exothermic reaction.

- None of the plating vats have secondary containment to prevent the contents of a vat from flowing offsite. The realistic potential for complete or partial building collapse at the abandoned Site, either from fire or an earthquake, could result in a single or multiple vat failure. Such an event could produce a catastrophic offsite threat of chemical exposure at nearby residences.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

As discussed above, incompatible materials are stored in close

proximity to each other at an abandoned plating facility. Of particular concern is a breach or deterioration of containers that would result in the commingling of acids and cyanide to generate hydrogen cyanide gas.

In addition, the lack of adequate security, the potential for deteriorating containers, the lack of secondary containment, and the threat of releases of hazardous substances from the abandoned Site represent a significant threat of endangerment to the environment and to nearby populations.

5. NPL status

This facility is not on the NPL. HRS ranking is not anticipated at this time.

6. Maps, pictures and other graphic representations

Photographic documentation is provided in Appendix A and plating line layouts are provided as Appendix B.

B. Other Actions to Date

No other cleanup actions have been conducted at the Site to date.

C. State and Local Authorities's Roles

1. State and local actions to date

On February 20, 2001 the City Fire Department conducted an inspection at the facility and documented numerous violations of City code including violation of the Planning Code, Building Code, Fire Code, Storm Water Management and Discharge, and Building Conservation Code. These violations were documented in an April 9, 2001 *Declaration of Public Nuisance/Substandard and Order to Vacate and Order to Abate and Administrative Citation*, issued by the City of Oakland Community and Economic Development Agency. Also on April 9, 2001, the City of Oakland Fire Prevention Bureau issued a Stop Order requiring the facility owner, Mr. James Park, to immediately stop operations, secure the site, and evacuate the premises. The Stop Order further required that Mr. Park submit a facility closure plan to the Oakland Fire Department within 15 days of the Order.

2. Potential for continued State/local response

Neither state nor local agencies have the resources to undertake the required clean-up action at this time.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health, or Welfare or the Environment

The substances of concern are cyanides, strong acids, oxidizers and numerous heavy metal salts. Observations made during the removal site evaluation indicate the presence of hazardous substances including, but not limited to, the following:

1. Nitric acid - This is a corrosive material that can burn the skin, eyes and respiratory tract on direct contact or inhalation of vapors. It can cause acute pulmonary edema or chronic pulmonary diseases from inhalation. When heated or reacted with water, it produces toxic and corrosive fumes.
2. Hydrochloric acid - This is a strong corrosive that can burn the skin, eyes and mucous membranes on dermal contact. It also is moderately irritating to the respiratory tract when inhaled. Hydrochloric acid produces toxic and corrosive fumes when exposed to water.
3. Chromic acid - This is corrosive to metals and organic tissue. Chemical reactions with on-Site materials may generate sufficient heat to ignite the combustible materials at the Site. A fire may produce irritating or poisonous gases.
4. Chromium - This is a suspected OSHA human carcinogen. Chronic exposure to chromate dust may cause bronchogenic carcinoma. Chromium is a poison and, when ingested, causes gastrointestinal effects.
5. Sodium Hydroxide - Sodium hydroxide is a strongly alkaline material (pH levels greater than 7.0). Sodium hydroxide is corrosive and has an irritating effect on all body tissue, causing burns and deep ulcerations. Inhalation can cause damage to the upper respiratory tissue and lung tissue, with effects ranging from mucous membrane irritation to severe pneumonitis.
6. Cyanide - Cyanide is readily absorbed through the skin,

mucous membrane and by inhalation. Symptoms of cyanide poisoning include anxiety, confusion, vertigo, nausea, convulsions, paralysis, coma, cardiac arrhythmias, and transient respiratory stimulation followed by respiratory failure.

1. Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations or the food chain

Receptors for the Site include any on-Site workers, trespassers and nearby residential populations. The Site is located in a residential neighborhood, and there are residences located immediately adjacent to the Site on three sides. The fourth side fronts a residential street along which there is a significant amount of pedestrian and vehicle traffic. Routes of exposure include direct contact, ingestion, adsorption and inhalation. Exposure via inhalation could be introduced to extra-facility populations in the event of a facility fire or the mixture of incompatible chemicals, such as hydrogen chloride and cyanide.

2. Actual or potential contamination of drinking water supplies

There is no actual or potential contamination of drinking water supplies identified to date, although contamination of surface water and subsequent run-off is possible, as is infiltration of contamination into groundwater aquifers.

3. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.

Large volumes of plating solutions, chemicals, and rinsates were observed on site in vats, drums and other containers. Several vats were observed to have limited freeboard and showed signs of corrosion. There also is the potential for hydrogen cyanide gas generation and release at the introduction of acid into the cyanide plating solutions or sludges.

4. High levels of hazardous substances or pollutants or contaminants in soils at or near the surface, which may migrate off-Site.

As yet, there are no identified levels of hazardous substances or pollutants or contaminants in soils at or near the surface.

However, EPA will evaluate the scope of such contamination within the proposed removal action.

5. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released

Summer is currently approaching, and with it the increased potentials for fire. A fire at the Site could result in a significant release.

6. Threat of fire or explosion

Mix of incompatible chemicals such as acids and bases could cause a fire at the facility. Such mixing could occur through the continued deterioration and ultimate leaking of plating vats. Air emissions from a fire could endanger surrounding residences. In addition, exposed electrical wiring was observed at the facility, which increases the potential for a fire at the Site. However, EPA believes that electrical service to the facility has been disconnected.

7. Availability of other appropriate Federal or State response mechanisms to respond to the release

The total estimated cost of this removal action is greater than could be funded through the State Emergency Reserve Account (ERA).

B. Threats to the Environment

The identified areas of contamination present an immediate and substantial threat to human health and the environment. Storm sewers are present adjacent to the facility, which are a potential pathway for the discharge of contaminants into nearby waterways. Because of the inadequate secondary containment at the Site and other Site conditions, there exists the potential for a discharge of hazardous materials to storm sewers. The potential for such discharge is increased in the event of a fire and corresponding fire suppression efforts. Furthermore, there is the potential for violent or toxic chemical reaction at the Site. Specific wildlife that may be impacted from any pathway have not yet been identified.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action

selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

The overall objective of the removal action will be to identify all situations that pose an imminent and substantial endangerment to the public and the environment, and mitigate the potential for such situations in a cost effective manner in accordance with the National Contingency Plan.

1. Proposed action description

The removal action will be conducted in two initial phases. Phase I will involve securing the Site, conducting a thorough assessment, and stabilizing hazards through bulking, containerization, segregation, or by any other appropriate means. The major tasks anticipated in the Phase I response include:

- a. Sample and characterize all containerized materials;
- b. Provide Site security;
- c. Stabilize the Site by bulking, containerization, or segregation of hazardous materials as needed;
- d. Perform air monitoring and sampling in accordance with OSHA requirements during all phases of the removal action, especially when there is a potential for airborne releases of toxic air contaminants. Operational controls such as dust containment and/or suppression will be used to abate fugitive dust emissions;
- e. Remove or stockpile non-hazardous equipment and debris to provide adequate space for Phase II response operations;

The major tasks anticipated in a Phase II response include the following:

- a. Prepare and provide all hazardous substances for proper transportation and disposal, or where feasible, alternative treatment or reuse/recycle options. The above may include bulking of compatibles, direct shipment for reuse, recontainerization of materials into DOT specification containers, lab packing small quantities,

solidification of liquid wastes, and neutralization or other on-Site treatment of wastes; and

- b. Remove grossly contaminated equipment, structures and debris for proper disposal. An attempt will be made to decontaminate structures to non-hazardous levels and minimize the volume of hazardous wastes.
- c. Evaluate and address subsurface contamination.

2. Contribution to remedial performance

The long-term cleanup plan for the site:

Long term remedial actions at this Site are not anticipated at this time.

Threats that will require attention prior to the start of a long-term cleanup:

The immediate threats that have been identified in the Action Memo will be addressed by the proposed removal action.

The extent to which the removal will go to ensure that threats are adequately abated:

The removal action will accomplish the removal of all above ground, identified hazardous waste, all plating related chemicals, and all contaminated or potentially contaminated equipment. The removal action also will provide initial indicators of the extent for potential subsurface contamination.

Consistency with the long-term remedy:

Not applicable at this time.

3. Description of alternative technologies

Alternative technologies have not been considered.

4. Applicable or relevant and appropriate requirements (ARARs)

Section 300.415(I) of the NCP provides that removal actions must attain ARARs to the extent practicable, considering the exigencies of the situation.

Section 300.5 of the NCP defines applicable requirements as cleanup standards, standards of control, and other substantive environmental protection requirements, criteria or limitations promulgated under Federal environmental or State environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location or other circumstances at a CERCLA site.

Section 300.5 of the NCP defines relevant and appropriate requirements as cleanup standards, standards of control and other substantive requirements, criteria, or limitations promulgated under Federal environmental or State environmental or facility siting laws that, while not "applicable" to a hazardous substance, pollutant, or contaminant, remedial action, location, or other circumstances at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site and are well-suited to the particular site.

Because CERCLA on-site response actions do not require permitting, only substantive requirements are considered possible ARARs. Administrative requirements such as approval of, or consultation with administrative bodies, issuance of permits, documentation, reporting, record keeping, and enforcement are not ARARs for the CERCLA actions confined to the Site.

Only those State standards that are identified by a State in a timely manner and are more stringent than Federal requirements may be applicable or relevant and appropriate. The State has not identified State ARARs at this time.

The following ARARs have been identified for the proposed response action. All can be attained.

Federal ARARs: Potential Federal ARARs are the Clean Water Act (40 CFR Part 403) requirements for direct discharges to a POTW; the RCRA Land Disposal Restrictions (40 CFR § 268.40 SubPart D implemented through Title 22 Section 66268.40); the CERCLA Off-Site Disposal Rule (40 C.F.R. § 300.440; Oswey Directive 9347.3-8FS); and the U.S. Department of Transportation of Hazardous Materials Regulations (49 CFR Parts 171, 172 and 173).

State ARARs: None identified at this time.

6. Project schedule

The estimated length of time needed to complete the project is 8 - 12 weeks, exclusive of soil evaluation and potential clean-up.

A. Estimated Costs

The costs of this removal action are estimated as follows:

Extramural Costs (ERCS)	\$ 750,000
Extramural Costs (START)	\$ 75,000
USCG. PST	\$ 50,000
EPA Costs	\$ 50,000
Total Project Ceiling	\$ 925,000

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

It is reasonable to expect that vats and containers at the Site will continue to deteriorate and present a release hazard. The observed storage of incompatible materials in close proximity to each other is of particular concern and needs to be addressed immediately. A delayed response at this Site could pose a significant risk to the surrounding community.

VII. OUTSTANDING POLICY ISSUES

None identified.

VIII. ENFORCEMENT

See attached Enforcement Confidential Memorandum.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Cal-Tech Metal Finishing Site in Oakland, California, developed in accordance with CERCLA, as amended, and not inconsistent with the NCP. This decision is based on the administrative record for the Site.

Conditions at the Site meet the NCP criteria set forth at 40 C.F.R. § 300.415(b)(2) for a removal, and I recommend your approval of the proposed removal action. The total project ceiling if approved will be \$925,000. Of this, an estimated \$750,000 comes from the Regional Removal allowance.

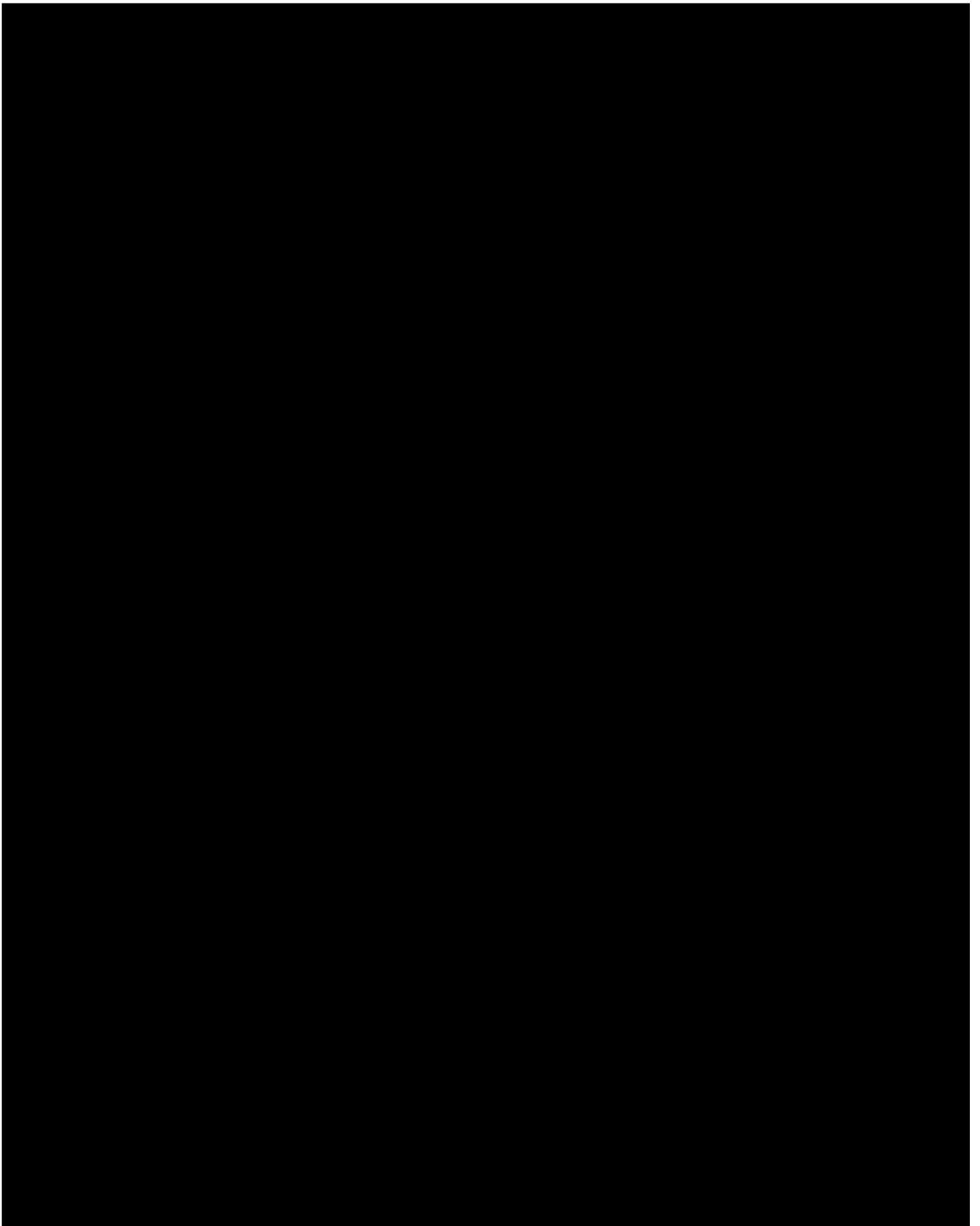
Please indicate your approval of the recommended removal action at the Cal-Tech Metal Finisher Site by signing on the appropriate line below.

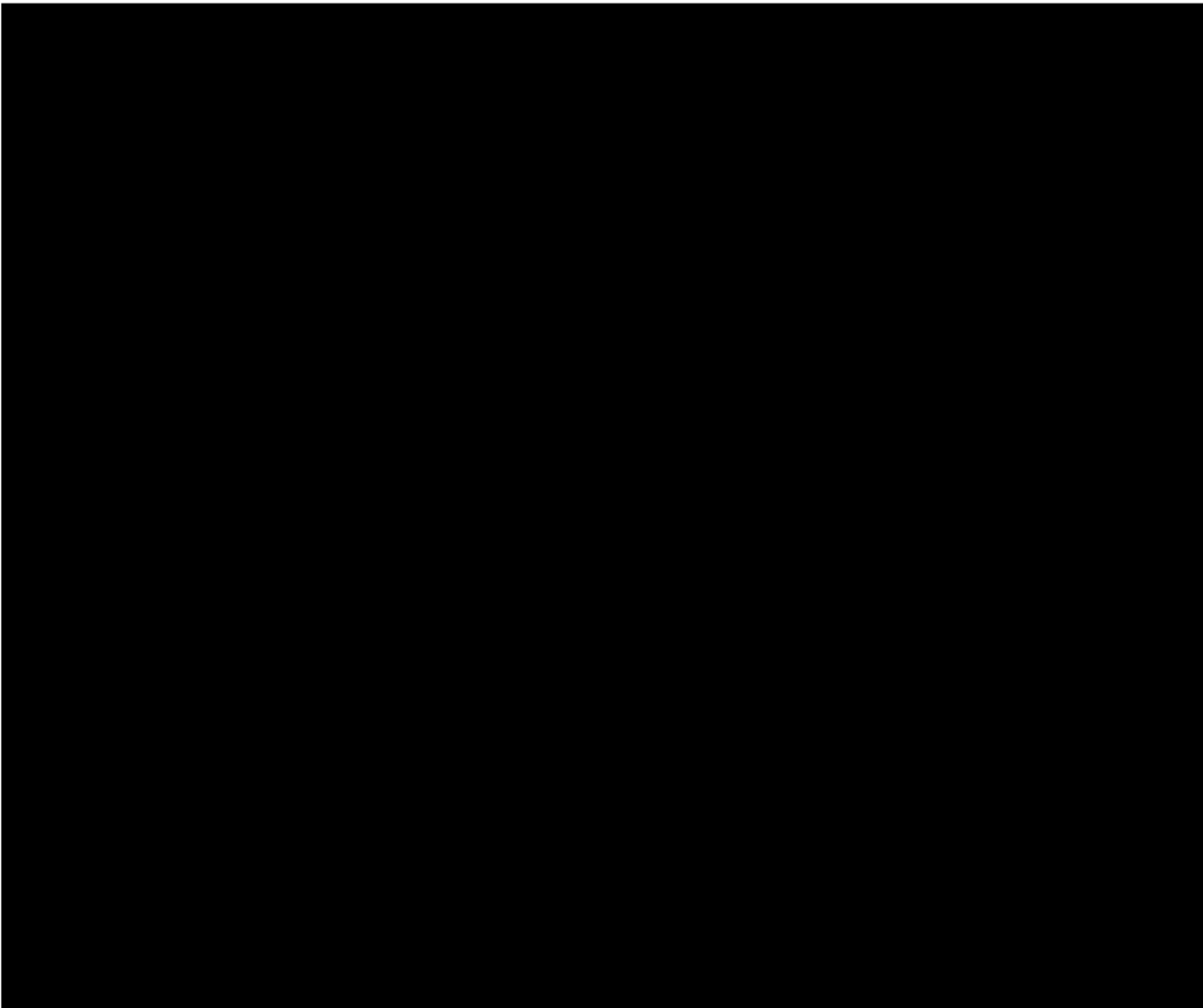
Keiichi Taka —
Approval Signature

5-15-01
Date

Disapproval Signature

Date





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