I. EFFECTIVE DATE AND APPLICABILITY OF REGULATION

A. Authorization. Upon recommendation of the Director of the Department of Public Health, the Health Commission adopts this regulation pursuant to Section 3107(a) of Article 31 of the Health Code (Ordinances Nos. ) applicable to all Hunters Point Shipyard (HPS) parcels (under sections 3100 et seq.). These regulations are effective on the effective date of the ordinance. The Director of the Department of Public Health has delegated the authority to implement Article 31 to the Director of the Environmental Health Section. All references in the ordinance to the Director shall be to the Director of the Environmental Health Section.

B. Purpose. These regulations establish requirements for preparing plans and reports including: Site Evaluation, Supplemental Site Evaluation, Site Mitigation, Risk Evaluation and Closure Reports, as applicable, pursuant to Article 31, Section 3100 et seq. in connection with permit applications at HPS. These regulations also establish residual soil screening criteria for unrestricted residential property and minimum criteria for all applicable Site Evaluation Reports, Dust Control Plans, Unknown Contaminant Contingency Plans, Disposal Plans, Site Specific Health and Safety Plans Plans, and Foundation Support Piles Installation Plans and Serpentine Cover Plans.

C. These regulations apply to the extent that a Prescribed Subsurface Activity Area is subject to these regulations as shown in the attached map adopted by the Director pursuant to Article 31, Section 3107(d).
II. REPORT PREPARER’S QUALIFICATIONS

A. For all reports required by ordinance or in these regulations, except the Site Specific Health and Safety Plan and the Foundation Support Piles Installation Plan, the preparer(s):
   1. must have experience or educational background in site history, and
   2. must be one or more of the following who is registered or certified by the State of California:
      a. Civil or Chemical Engineer;
      b. Geologist;
      c. Hydrogeologist;
      d. Environmental Assessor II; or
      e. Environmental Assessor I for site history only; or
      f. Equivalent registration as determined by the Director.

B. For Site Specific Health and Safety plans, the preparer(s):
   1. must have experience in preparation of Health And Safety Plans for soil excavation, soil grading and soil disposal for soil that may contain contaminants listed on Table 1 and
   2. must be a:
      a. Certified Industrial Hygienist or
      b. Equivalent registration as determined by the Director.

C. For the Foundation Support Piles Installation Plan, the preparer(s):
   1. must have experience in designing and installing foundation support piles in potentially contaminated artificial fill materials and
   2. must be a:
      a. Civil Engineer registered in the State of California or
b. Equivalent registration as determined by the Director.

III. SCREENING CRITERIA

The Director establishes the following residual soil screening criteria for unrestricted residential property:

<table>
<thead>
<tr>
<th>TABLE 1</th>
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</thead>
<tbody>
<tr>
<td>HAZARDOUS CONSTITUENT</td>
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<tr>
<td>Inorganic persistent and bioaccumulative toxic substances listed in 22 Cal. Code Regs. §6261.24(a)(2)(A)</td>
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<tr>
<td>Volatile organic toxic pollutants listed in 40 C.F.R. Part 122, Appendix D, Table II</td>
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<tr>
<td>PCBs</td>
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<tr>
<td>pH levels</td>
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<tr>
<td>Total petroleum hydrocarbons</td>
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<tr>
<td>Pesticides</td>
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<tr>
<td>Metals</td>
</tr>
<tr>
<td>Radionuclides</td>
</tr>
<tr>
<td>Semi-volatile organic compounds</td>
</tr>
<tr>
<td>Polycyclic aromatic hydrocarbons</td>
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</tbody>
</table>
IV. DUST CONTROL PLAN, UNKNOWN CONTAMINANT CONTINGENCY PLAN, DISPOSAL PLAN, SITE SPECIFIC HEALTH AND SAFETY PLAN, SOIL IMPORTATION PLAN, FOUNDATION SUPPORT PILES INSTALLATION PLAN AND SERPENTINITE COVER PLAN.

Whenever a Dust Control Plan; Unknown Contaminant Contingency Plan, Disposal Plan, Site Specific Health and Safety Plan, Soil Importation Plan, Foundation Support Piles Installation Plan or Serpentine Cover Plan is required pursuant to Article 31, the Applicant shall prepare such plan to the satisfaction of the Director in accordance with the following minimum requirements:

A. Dust Control Plan: Shall be prepared in accordance with (a) Article 22B of the Health Code; (b) mitigation measures imposed by the Hunters Point Reuse Plan FEIR (2000) [specifically, Mitigation Measures 2.B and 8.A], and the Candlestick Point-Hunters Point Shipyard Phase II FEIR (2010), [specifically, Mitigation Measure MM HZ-15]; (c) DPW Order #171,378, as amended, and d) BAAQMD regulations pertaining to visible dust, and, if applicable, dust from asbestos or lead-based paint materials, as amended.

B. Unknown Contaminant Contingency Plan: Details on actions that will be taken if previously unknown contamination is found, as required in the Candlestick Point-Hunters Point Shipyard Phase II FEIR (2010), [specifically, Mitigation Measure MM HZ-2a.1];

C. Disposal Plans: Must include: a list of landfills and contact information to be used for offsite disposal; examples of tracking spreadsheets (or equivalent) that must include: date of excavation, location of excavation, quantity, soil type, bill of lading or manifest number, transporter and landfill; and comply with Hunters Point Reuse Plan FEIR Mitigation Measure 8.A.
D. Site Specific Health and Safety Plans: Must address the safety and health hazards of each phase of the site operation and include the requirements and procedures for employee protection, including: (1) a health and safety risk or hazard analysis for each activity in the work plan; (2) training requirements for employees, including use of PPE, work practices to minimize risk, use of engineering controls and equipment, medical surveillance requirements; (3) PPE to be used for each site task; (4) medical surveillance; (5) frequency and types of air monitoring, personnel monitoring, monitoring techniques and maintenance of equipment; (6) site control measures; (7) decontamination procedures; (8) an emergency response plan; and (9) spill containment program; and must comply with Hunters Point Reuse Plan FEIR Mitigation Measures 7.D, 7.E, 8.A (2000) and the Candlestick Point-Hunters Point Shipyard Phase II FEIR (2010), [specifically, Mitigation Measure MM HZ-2a.2]; and applicable Cal/OSHA rules and regulations in effect at the time the activity is being conducted.

E. Soil Importation Plan: The Soil Importation Plan must estimate the quantities of soil to be imported onto the site; describe the locations of use and describe the procedures to be used to ensure that imported soil does not exceed the established screening levels.

F. Foundation Support Piles Installation Plan: Shall be prepared in accordance with the Candlestick Point-Hunters Point Shipyard Phase II FEIR (2010), [specifically, Mitigation Measure MM HZ-5A]. The Foundation Support Piles Installation Plan shall be written for installing foundation support piles in artificial fill materials and shall specify: (1) that pilot boreholes for each pile will be drilled through the artificial fill materials so the piles can be installed without damage or misalignment and to prevent potentially contaminated fill materials from being pushed into the underlying sediments or groundwater or (2) an
equivalent process that can accomplish the same goal of installing the piles without damage
or misalignment and to prevent potentially contaminated fill materials from being pushed into
the underlying sediments or groundwater.

G. Serpentinite Cover Plan: This plan shall be prepared for unrestricted residential
property in accordance with the Hunters Point Reuse Plan FEIR (2000) Mitigation Measure
8.A.

1. Prior to covering serpentine fill with a clean, non-serpentine, non-naturally
occurring asbestos containing fill or an equivalent cover, the applicant shall submit a
Serpentine Cover Plan to the Director that contains descriptions and figures designating the
different types of cover material that will be used.

2. If one foot of non-serpentine or non-naturally occurring asbestos containing fill
is to be used as a cover then the Serpentinite Cover Plan shall include a sampling and
analysis plan that describes the protocols that will be used to verify that the one foot of cover
does not contain naturally occurring asbestos. Once the sampling and analysis plan is
approved by the Director then sampling shall be conducted to verify that the fill is acceptable
as a cover material. Alternatively, imported fill may be used as cover provided that it has
been tested for asbestos and verified not to contain asbestos, in accordance with the Soil
Importation Plan prepared pursuant to paragraph IV.E. of this regulation. The sample results
or verification of non-asbestos containing imported fill shall be submitted for the Director's
approval. The results or verification can be submitted as part of the Closure Report or as a
separate report.
3. A building, street, sidewalk, paving stones, rip rap or similar material, as
determined by the Director, can be used as a cover in lieu of fill that is tested and verified to
not contain naturally occurring asbestos.

4. The Serpentinite Cover Plan, or the Closure Report, shall describe how
institutional controls will be implemented to prevent future excavation of the naturally
occurring asbestos containing fill. The institutional controls may include, but shall not
necessarily be limited to, compliance with Article 31, these regulations and their dust control
plan requirements, as applicable, and must demonstrate that they will effectively prevent
generation of dust, including dust containing naturally occurring asbestos, during future
construction.

V. SITE EVALUATION REPORT

A Site Evaluation Report must include a project description, site history, data
evaluation and determination as to whether additional information is necessary to adequately
characterize the Prescribed Subsurface Activity Area prior to permit issuance as described
below. All data must be provided in a form compatible with GIS, to the extent feasible. As
described in Article 31 Section 3114 (a) (1), a Site Evaluation Report for a Prescribed
Subsurface Activity Area that has an existing approved Closure Report and maps verifying
placement of fill, as required, must include the project description information and a
statement about the approved Closure Report and comply with the other requirements
included in Article 31 (but need not include a site history, data evaluation, statement of
adequate characterization, etc). As described in subdivision (A)(6) below, a Site Evaluation
Report for a Prescribed Subsurface Activity Area subject to a durable cover requirement
must include the project description information, reference appropriate CERCLA documents
and comply with the other requirements included in Article 31 (but need not include a site
history, data evaluation, statement of adequate characterization, etc.).


In addition to those requirements listed in Article 31, the Site Evaluation Report shall
contain all of the following, unless otherwise specified by the Director:

1. Project description, which must include:
   a. Block and lot numbers and address(es) of the proposed project and any
      subparcel designation;
   b. The permit being applied for, if any;
   c. The permit agency and application number assigned to the project, if
      applicable;
   d. The proposed workplan for the Prescribed Subsurface Activity Area,
      cross-referencing the Hunters Point Shipyard Redevelopment Plan and showing intended
      land uses.
   e. The name, address, and phone number of the following:
      (i) Contractor(s);
      (ii) Property Owner(s);
      (iii) Project Coordinator(s) or Expediter(s);
      (iv) Architect(s); and
      (v) Site Evaluation Preparer(s)
   f. A plot map, to scale, of the proposed project, proposed land uses, and
      the Prescribed Subsurface Activity Area. This plot map must include, but is not limited to, the
      following:
      (i) SCALE: 200 ft to 1 inch Minimum; and

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(ii) LOCATION(S) of all previous buildings and potentially contaminating uses.

g. A detailed description of the Prescribed Subsurface Activity Area, including but not limited to:

(i) Lineal foot dimensions (i.e. length, width, and depth);

(ii) Any excavation or disturbance of soils during all phases of construction – both onsite and within the sidewalk(s) adjacent to project;

(iii) Planned landscaping, if any, during or after major construction is completed; and

(iv) The relationship of the Prescribed Subsurface Activity Area to the total project and the perimeter of the property line.

h. A line showing a 1,000 foot radius from the closest former landfill disposal area, if applicable. The Director will provide the Applicant with the most current data available to the Director on former landfill disposal areas.

2. Site history, which must include a summary of land use, location and years of existence of the buildings, structures or operations, suspected chemical substances used or produced with probable years of use and production, and identification of previous environmental investigations and remediation for the Prescribed Subsurface Activity Area. The report must be prepared based on the following list of core documents available as part of the Administrative Record for the Hunters Point Shipyard Site (located at the City of San Francisco’s Main Library, 100 Larkin Street). The core documents include:

a. Final Basewide Environmental Baseline Survey, Revision 01, September 4, 1998

b. Draft Final Parcel A Remedial Investigation Report, September 22, 1995

c. Parcel specific Record of Decision (ROD) that describes the Prescribed
Subsurface Activity Area. Currently the following RODs exist:

- Parcel A ROD, dated November 16, 1995
- ROD Amendment for Parcel B, dated January 2009
- ROD for Parcel D-1, dated September 2009
- ROD for Parcel G, dated February 2009
- ROD for Parcel UC-1, dated August 2009
- ROD for Parcel UC-2, dated in December 2009.

d. Parcel specific Finding of Suitability for Transfer (FOST) or Early Transfer that describes the Prescribed Subsurface Activity Area. The Parcel A Finding of Suitability to Transfer was published on October 14, 2004.


f. Parcel specific Remedial Design Documents that exist for the Prescribed Subsurface Activity Area. Currently the following Remedial Design documents exist:

- Final IR7/18 Remedial Design dated January 2010
- Draft Parcel B Remedial Design dated February 2010
- Draft Parcel G Remedial Design dated February 2010

3. Data Evaluation, which must include a summary of existing soil and groundwater information and data, chemical plume maps and hydraulic gradient maps for each Prescribed Subsurface Activity Area. This data must be compared to the values listed in Table 1.

4. A determination of whether the sample results are greater than the values in Table 1. This determination need not be a direct comparison but may include the same or equivalent data analysis/methodology used by the Navy in evaluating the Hunters Point Shipyard, including statistical analysis, risk assessments and risk management.
5. The Applicant must demonstrate that the Prescribed Subsurface Activity Area is adequately characterized. In making this determination the Applicant shall use one of the following methods or an alternative method, providing the rationale for such determination:

   a. Existing sampling data.

      A. Number of samples based on existing data meets the grid size of no greater than 75 feet for a lot size of 100 feet by 125 feet or no greater than 150 feet for lot size exceeding 100 feet by 125 feet for each Prescribed Subsurface Activity Area.

      B. For former subsurface Navy utility lines: 1 sample every 150 linear feet

      C. Samples were collected at one foot less than the proposed depth of the excavation/grading and at a minimum of one sample for each 5-foot vertical interval.

      D. Samples were tested for chemicals of concern.

   b. For Tier I areas, the Applicant may make this determination by demonstrating that the criteria for Tier I areas is met.

   c. For Tier II areas, if the Applicant determines that potential unknown hazardous substances of concern can be identified through visual observation during the activity requiring the permit (e.g., grading or excavation), the Applicant shall submit, for approval by the Director, a protocol setting forth the steps that will be taken to visually identify those hazardous substances during the subsurface activity; sampling and analysis; management methods; record-keeping and reporting; and other appropriate measures that will be taken if hazardous substances are identified during the subsurface activity. Based on concurrence with the determination and approval of the protocol, the Director shall provide written notification to the Applicant and the permit-issuing agency that the Applicant has complied with the requirements of Article 31.
6. Notwithstanding the previous subdivisions, an Applicant submitting a Site Evaluation Report for property with a durable cover requirement may reference the ROD prepared under CERCLA for the parcel in which the Prescribed Subsurface Activity Area is located, or other core documents listed above containing relevant site history and data for the Prescribed Subsurface Activity Area, in lieu of the submissions otherwise required under subdivisions 2 through 5 of this subsection.

B. Site Evaluation Report Certification Statement.

The Site Evaluation Report shall contain a certification statement from the Site Evaluation Report preparer(s), that, "In my professional judgment and in accordance with standards of practice for my profession, the Site Evaluation Report, including the determination of whether additional information is needed to adequately characterize the area (as applicable), contains all required information, meets the requirements of all applicable law and properly evaluates the required information."

VI. SCOPE OF WORK TO COLLECT ADDITIONAL INFORMATION AND/OR DATA

If the Director, upon review of the Site Evaluation Report for any unrestricted residential property determines that additional information and/or data is necessary then Applicant must prepare and submit for the Director's approval a scope of work to collect additional information and/or data. Unless approved by the Director, soil samples must be collected and analyzed for all applicable constituents of concern which exceed the Table 1 values.

A. Minimum Standards for the Contents of the Scope of Work.

The Scope of Work shall contain the following:
1. A plot map, to scale, of the Prescribed Subsurface Activity Area that has been
determined to require additional investigation. This plot map must include, but is not limited
to, the following:

   SCALE: 50 ft to 1 inch Minimum (unless another scale has been
   previously approved for use)

   LOCATION(s) of all previous uses

   LOCATION(s) of Prescribed Subsurface Activity Area

   LOCATION(s) of previous (historical) and proposed sampling bores and depths

2. A discussion of the type (discrete or composite) and number of samples to be
taken and the rationale behind the sample location, sample type and number proposed.

   a. Number of samples must meet a grid size of no greater than 75 feet for a lot
      size of 100 feet by 125 feet or no greater than 150 feet for lot size exceeding 100 feet by 125
      feet for each Prescribed Subsurface Activity Area.

   b. For former Navy subsurface utility lines, one sample every 150 linear feet.

   c. Any alternative plan, if proposed, must be accompanied by the rationale for
      such proposal.

3. A discussion with rationale of field sampling protocol and quality
   assurance/quality control procedures.

4. A Health And Safety Plan supporting the collection of additional information
   and/or data, if not already detailed in the Site Specific Health and Safety Plan already
   submitted.

B. Requirements Related to Lead Based Paint in Soil

   For unrestricted residential property, soil in areas that undergo demolition of lead
   based paint impacted buildings must be sampled in accordance with HUD Guidelines

Chapter 5, page 24 and 25 or http://www.hud.gov/offices/lead/lbp/hudguidelines/Ch05.pdf
using a 400 ppm standard for all areas rather than the standard otherwise applicable using Table 1. A plan for collection and analysis of soil samples for lead must be submitted as a Scope of Work to Collect Additional Information. For all HPS property, if all soil in areas that undergo demolition of lead based paint impacted buildings is subject to a durable cover or an engineered cap deed restriction or covenant to restrict use of property, then no further action is required. If this durable cover or engineered cap deed restriction or covenant to restrict use of property is removed and if the reuse is changed to unrestricted residential reuse then a plan for collection and analysis of soil samples for lead shall be submitted.

C. Scope of Work to Collect Additional Information Certification Statement.

The Scope of Work to collect additional information shall include a statement from the Scope of Work preparer(s), that, "In my professional judgment and in accordance with the standards of practice for my profession the Scope of Work to Collect Additional Information describes the conditions for the Prescribed Subsurface Activity Area, contains all required information, meets the requirements of all applicable law and properly evaluates the required information."

VII. SUPPLEMENTAL SITE EVALUATION REPORT

A Supplemental Site Evaluation Report must be prepared following implementation of the Scope of Work to Collect Additional Information and/or Data.


1. The Supplemental Site Evaluation Report shall contain the following with all data provided in a form compatible with the GIS, to the extent feasible:
a. A scale map with sample locations plotted with contaminants at concentrations exceeding the values listed in Table 1, respective concentrations, and depths indicated, and showing proposed land uses;

b. On the map, or a separate table, a comparison of the laboratory results and the analyte appropriate value of constituents of concern compared to the values listed in Table 1.

c. An analysis of all of the information and/or data in the Prescribed Subsurface Activity Area:

(i) a determination of whether the Prescribed Subsurface Activity Area is adequately characterized;

(ii) a determination of whether the sample results are greater than the values listed in Table 1. This determination need not be a direct comparison but may include the same or equivalent data analysis/methodology used by the Navy in performing the cleanup of the Hunters Point Shipyard, including statistical analysis, risk assessments and risk management.

B. Supplemental Site Evaluation Report Certification Statement.

The Supplemental Site Evaluation Report shall include a statement from the preparer that, "In my professional judgment and in accordance with standards of practice for my profession, the Supplemental Site Evaluation Report describes the conditions for the Prescribed Subsurface Activity Area, contains all required information, meets the requirements of all applicable law and properly evaluates the required information."

VIII. RISK EVALUATION REPORT

In unrestricted residential property, if the Applicant wishes to retain soil which has been required to be evaluated under the Site History and Data Evaluation Process that
exceeds the values in Table 1 in the Prescribed Subsurface Activity Area or elsewhere within
unrestricted residential property, the Applicant shall prepare a Risk Evaluation Report, which
may be combined with the Site Mitigation Plan. The Risk Evaluation Report must conclude
that the property may be used for unrestricted residential use consistent with the FOST for
the unrestricted residential property. The Risk Evaluation Report may use the same or
equivalent data analysis/methodology used by the Navy during the cleanup of the Hunters
Point Shipyard.

IX. SITE MITIGATION PLAN

A. When required. The Applicant must prepare a Site Mitigation Plan if the
Applicant wishes to retain soil that exceeds the values in Table 1 within the unrestricted
residential property.

B. Minimum Standards for the Contents of the Site Mitigation Plan. The Site
Mitigation Plan shall contain the following:

1. A detailed description of the contemplated mitigation measures, including, if
necessary, a Dust Control Plan, an Unknown Contaminant Contingency Plan, Disposal Plan,
Site Specific Health And Safety Plan, and Soil Importation Plan and deed notice language (if
necessary).

2. If Applicant determines that no mitigation measures are necessary then the
rationale for such determination.

3. A list of requirements for all future contractors/owners/developers to include in
their written Health and Safety Plan for all site workers who may be exposed to hazardous
soils left in-place.

C. Site Mitigation Plan Certification Statement.
The Site Mitigation Plan shall include a statement from the preparer that, "In my professional judgment and in accordance with standards of practice for my profession, either no mitigation is required or the mitigation measures identified, if completed, will mitigate the significant environmental or health and safety risks caused or likely to be caused by the contamination left in the soil and that the property may be used for unrestricted residential use."

X. CLOSURE REPORT

A closure report must be prepared following completion of activities authorized by a permit subject to Article 31.

A. Minimum Standards for the Contents of the Closure Report. The Closure Report shall list the permit numbers (i.e. from DBI, DPW or DPH) or assigned Article 31 case numbers covered by the Closure Report and describe how and when the Dust Control Plan, Unknown Contaminant Contingency Plan, Disposal Plan, Site Specific Health And Safety Plan, Soil Importation Plan, Foundation Support Piles Installation Plan, Serpentinite Cover Plan, and Site Mitigation Plan, as applicable, were implemented and any changes that were made during implementation. The Report shall include any drawings, figures and pictures necessary. The Closure Report must include completed tracking spreadsheets (or equivalent) for disposal of excavated soil. The Closure Report shall include all environmental sampling data in a form compatible with GIS, to the extent feasible.

B. Closure Report Certification Statement.

The Closure Report shall include a statement from the preparer that, "In my professional judgment the control, safety, and mitigation measures identified in the Dust Control Plan, Unknown Contaminant Contingency Plan, Disposal Plan, Site Specific Health And Safety Plan, Soil Importation Plan, Foundation Support Piles Installation Plan,
Serpentinite Cover Plan, and Site Mitigation Plan, as applicable, and all other requirements of applicable law were implemented as described in this report and in accordance with standards of practice for my profession."

XI. MAPS.

To assist with compliance with the ordinance and these regulations, the attached map shows the Parcel boundaries, the historic fill areas, former landfill disposal sites and a line representing the 1,000 foot perimeter from those landfill sites. For unrestricted residential property, the map illustrates the Navy utility lines suspected to still be in place on the property.

By: [Signature]
Dr. Mitchell Katz
Director, San Francisco Department of Public Health

By: [Signature]
Mark Morewitz
Executive Secretary to the Health Commission