Via Electronic Mail

March 2, 2018

Ms. Carmen Santos
PCB Coordinator
U.S. Environmental Protection Agency, Region 9 (WST-5)
75 Hawthorne Street
San Francisco, CA 94105

Subject: **Draft Cleanup Plan Approach**
Former Westinghouse Apparatus Repair Facility, Rancho Dominguez, California

Dear Ms. Santos:

On behalf of CBS Corporation (CBS), WSP USA Inc. (WSP) has developed this draft Cleanup Plan approach to remediate polychlorinated biphenyls (PCBs) from the interior of the former Westinghouse Apparatus Repair facility in Rancho Dominguez, California. The Cleanup Plan approach described herein generally aligns with the preliminary discussions during the teleconference between CBS, WSP, and US Environmental Protection Agency (USEPA) on February 2, 2018. Portions of the approach are intended to supersede the conceptual approach described in the annotated Risk-Based PCB Cleanup Plan Outline, submitted on August 4, 2016.

BACKGROUND

In 2015, CBS and WSP developed and implemented a scope of work to remove PCB-containing dust and clean all accessible porous and non-porous surfaces in the warehouse area of the facility. After vacuuming loose dust from perch surfaces of the structure, the non-porous surfaces (metal, glass, etc.) were cleaned by wiping surfaces with rags wetted with Simple Green® Industrial Cleaner and Degreaser. Porous surfaces (masonry and concrete) were cleaned by scrubbing/brushing with the Simple Green® solution followed by rinsing. Cleaning fluids were mixed with absorbent materials to eliminate free liquids. Dust, rags, and absorbent materials were properly disposed of offsite as a hazardous waste.

The scope of work included preliminary indoor air sampling for both PCB particulates and vapors in the warehouse and office areas of the facility to establish baseline conditions. Two indoor air sampling events were performed concurrently with cleaning activities, and one final indoor air sampling event was conducted after completion of the cleaning work.

Following cleaning, bulk samples of concrete floors and masonry walls (porous surfaces) and wipe samples from non-porous surfaces were collected to evaluate the efficacy of the cleaning process. Based on the results, some locations were re-cleaned and resampled. The final sampling results provide the basis for data evaluation described herein.

RISK-BASED CLEANUP LEVELS

On August 4, 2016, CBS and WSP presented the sampling results, descriptions of exposure units, calculated exposure point concentrations (EPCs), and screening criteria for the four types of affected media including indoor air, non-porous surfaces, porous surfaces (concrete/masonry), and bulk dust associated with the facility's heating, ventilation, and air conditioning (HVAC) system.

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During subsequent teleconferences and electronic correspondence between USEPA and CBS, the following risk-based cleanup levels (RBCLs) for total PCBs were selected and agreed to:

Media	RBCL
Indoor air (μg/m^3)	0.21
Non-porous surfaces (μg/100 cm^2)	
High frequency contact areas (a)	5
Low frequency contact areas (b)	10
Porous Surfaces (concrete/masonry) (mg/kg)	9.4
Bulk Dust (mg/kg)	0.94

a/ High frequency contact areas are wipe sample locations collected 8 feet or lower from the floor.
b/ Low frequency contact areas are wipe sample locations collected higher than 8 feet from the floor.

REMEDIATION DECISION UNITS

Based on the discussion with USEPA on February 2, 2018, the original exposure units defined in the August 2016 correspondence have been subdivided into smaller decision units. For example, the warehouse floors, which were originally defined as two exposure units (north and south of gridline N220), have been further divided into four decision units, defined as northeast, northwest, southwest and southeast quadrants. A fifth decision unit of warehouse floors has been defined as the floors and mezzanine levels of the two interior structures (see Figure 1).

The following decision units have been developed for the interior areas of the facility. EPCs, which are the 95 percent upper confidence limits (UCLs), have been calculated for each decision unit. Remediation is planned for the decision units in which the EPC exceeds the established RBCL. The following table summarizes the results of the EPC calculations and comparison to the RBCL:

Exposure Unit	Decision Unit	Frequency of Detection (a)	Total PCBs			Remediation Required? (Yes/No)
			Maximum Detected	EPC	RBCL	
Indoor Air (μg/m^3)	Indoor Air	5/6	0.098	0.088	0.21	No
Non-Porous Surface (μg/100 cm^2)	8 feet High or Lower	5/29	2.2	1.2	5	No
	Greater than 8 feet High	40/105	5.7	1.7	10	No
	Floor grates and drains	6/9	2.4	1.8	5	No
Concrete Floors (mg/kg)	Northeast Quadrant	45/45	130	35	9.4	Yes
	Northwest Quadrant	34/34	210	65	9.4	Yes
	Southwest Quadrant	43/43	31.9	4.9	9.4	No
	Southeast Quadrant	38/38	16	7.5	9.4	No
	Breakroom/Interior Office/Mezzanine	11/11	6.31	3.1	9.4	No
Concrete/Masonry Building Walls (mg/kg)	Northeast Quadrant	8/8	51	35	9.4	Yes
	Northwest Quadrant	6/6	1.7	1.5	9.4	No
	Southwest Quadrant	5/5	0.96	0.95	9.4	No
	Southeast Quadrant	4/4	2.2	2.2 (b)	9.4	No
	Breakroom/Interior Office	25/25	3.8	1.9	9.4	No
Transformer Pit (mg/kg)	Walls and Floor	10/10	4,500	3,102	9.4	Yes
Control Room/Storage Room (mg/kg)	Walls	10/10	5.4	3.5	9.4	No
Loading Docks (mg/kg)	Northeast Loading Dock (c)	4/4	390	333	9.4	Yes
	Southeast Loading Dock	5/5	7.0	4.9	9.4	No
	Southwest Loading Dock	4/4	3.3	3.3 (b)	9.4	No
HVAC System (mg/kg)	HVAC Dust	2/2	3.9	3.9 (b)	0.94	Yes

a/ Sample locations with duplicate samples were counted once.
b/ The EPC is reported as the maximum detected concentration.
c/ The floor of the northeast loading dock was replaced during PCB remediation activities in 2008. One sample was collected during 2015 cleaning activities to confirm that the concrete has not been recontaminated.

CLEANUP PLAN OBJECTIVES

The overall objective of the PCB Cleanup Plan is to remediate PCBs that are present inside the warehouse building at concentrations that exceed the established RBCLs. The 95 percent UCL for each decision unit will be used as the basis for comparison to the RBCLs.

For warehouse and remediation worker protection, air monitoring and periodic air sampling will be performed during implementation of the Cleanup Plan to assure that PCB concentrations in indoor air remain below applicable screening levels.

REMEDIATION APPROACH

For each decision unit identified above that requires remediation, abatement and mitigation techniques have been developed for each media type. As shown in the table, the concrete floors in the northeast and northwest quadrants of the warehouse, the perimeter walls in the northeast quadrant, the transformer pit walls and floor, the northeast loading dock walls, and the HVAC system in the western office area will require some degree of remediation. The locations of each of these features are shown on Figure 1. The planned approach for each decision unit is described below:

Concrete Floors – The selected remedial alternative for concrete floors is removal of the full thickness of concrete followed by replacement of the slab in kind. The removed concrete will be disposed of offsite based on the as-found PCB concentration. By applying the "hilltopping" approach previously discussed with USEPA, concrete grid intervals containing the highest concentrations of PCBs will be removed sequentially until the EPC of the remaining grids within the decision unit is below the RBCL of 9.4 mg/kg. The replaced slab is assumed to have a PCB concentration of zero (i.e., non-detect), and this data will be input to the database for the purposes of EPC calculation.

Based on previous sampling under the floor, CBS does not anticipate that soil beneath the removed slabs will contain PCBs above the cleanup level. There is a discussion that can be had about sampling underlying soils versus assuming that all underlying soils need to be capped. The replacement concrete slabs will be suitably designed and constructed to meet the requirements of a cap as defined in 40 CFR 761.61(a)(7).

Perimeter Walls – One wall sample in the northeast quadrant contained 51 mg/kg PCBs. Building walls cannot be removed due to structural constraints. Therefore, the concrete/masonry walls in portions of the northeast quadrant will be encapsulated using a 2-part epoxy coating. As a conservative measure, perimeter walls immediately adjacent to the transformer pit and northeast loading dock will be encapsulated.

Transformer Pit – Like the building walls, affected portions of the transformer pit cannot be safely removed due to structural concerns. CBS and the building owner have agreed in concept that remediation of the transformer pit should consider future redevelopment of the space as a second loading dock in this area. Consistent with the owner's wishes, the remediation plan for the transformer pit includes capping the materials currently present deeper than 4 feet below the warehouse floor level and installing a barrier against the walls of the pit at depth above 4 feet below the warehouse floor level. Clean fill from offsite will be imported to fill the pit to the design depth followed by installation of a concrete cap that meets the requirements of 40 CFR 761.61(a)(7). Unlike the remedy for the building walls described above, the walls of the loading dock have the potential to be scraped or otherwise damaged by transportation carriers; therefore, steel plates or other damage-resistant barrier material will be installed against the walls to eliminate potential exposure to the PCB-containing concrete. At the request of USEPA, WSP will evaluate combinations of encapsulation remedies (epoxy coatings and barriers) during the draft Cleanup Plan development.

Northeast Loading Dock Walls – Removal of the northeast loading dock walls is not practical due to structural constraints. Like the transformer pit walls, the northeast loading dock walls have the potential to be damaged by transportation carriers; therefore, steel plates or other damage-resistant barrier material will be installed against the existing walls to eliminate exposure to the PCB-containing concrete. WSP will evaluate combinations of encapsulation remedies (epoxy coatings and barriers) during the draft Cleanup Plan development.

HVAC System – Dusts within the HVAC ductwork in the western office area were found to contain PCBs above the RBCL. Remediation of the dusts will likely involve removal of the affected flexible and rigid ductwork and replacing the ducts with new materials. Affected materials will be properly disposed of offsite.

Institutional Controls – Institutional controls in the form of deed restrictions or environmental covenants will be required for portions of the facility where engineering controls (caps, barriers, encapsulants) are used to prevent direct contact with PCB-containing materials. These areas include the transformer pit, northeast loading dock walls, and portions of the perimeter wall in the northeast quadrant. Institutional controls will also be used to protect soil areas containing arsenic concentrations above screening levels. A Site Management Plan will be developed to monitor compliance of the institutional controls and assure long-term effectiveness of the engineering controls.

SCHEDULE

Following USEPA's concurrence with this draft Cleanup Plan approach, CBS and WSP anticipates submittal of the draft Cleanup Plan Application on May 18, 2018. The final Cleanup Plan Application is tentatively scheduled for June 22, 2018, but is subject to change based on EPA's anticipated 45-day goal for reviewing applications.

To minimize USEPA's review time and expedite approvals of the submittals, CBS and WSP agrees with USEPA's recommendation of bi-weekly teleconferences to discuss progress and key decisions during development of the plan. CBS would like to schedule these progress meetings for 2:00 p.m. eastern time (11:00 a.m. pacific) on the second and fourth Wednesdays of every month through approval of the Cleanup Plan. If acceptable, the first meeting would be held on March 14, 2018. Please let us know if these dates and times are acceptable.

CLOSING

CBS and WSP believe the RBCLs and cleanup plan approach are protective of facility workers and are appropriate for continued use of the facility for warehousing operations. If the approach is acceptable to USEPA, CBS and WSP will proceed with development of the draft Cleanup Plan Application. If you have any questions, please feel free to contact us.

Sincerely yours,

David Rykaczewski
Senior Technical Manager

Enclosure

cc: Russ Cepko, CBS Corporation

ENCLOSURE

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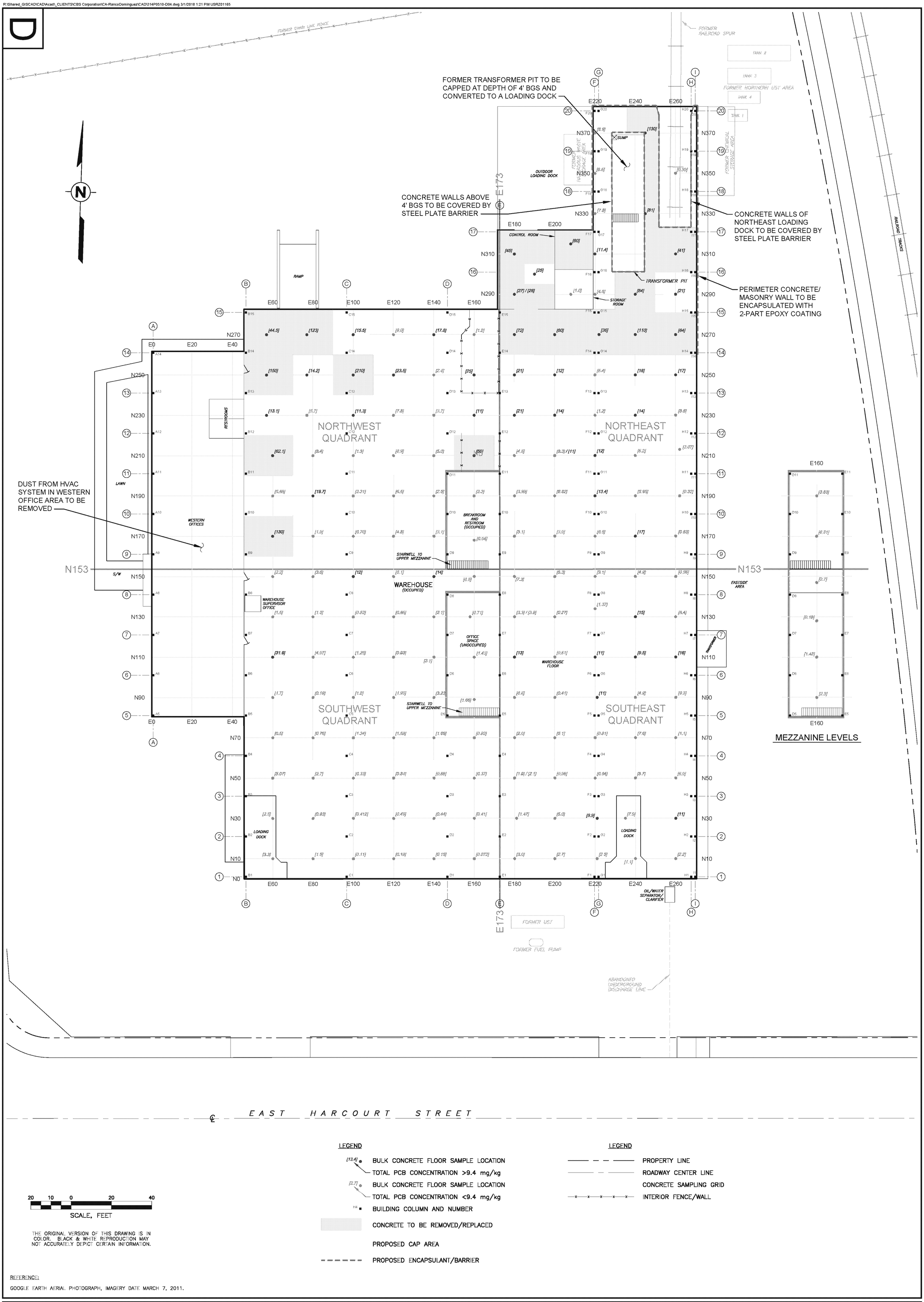

LEGEND

- [13.4] BULK CONCRETE FLOOR SAMPLE LOCATION
- TOTAL PCB CONCENTRATION >9.4 mg/kg
- [2.7] BULK CONCRETE FLOOR SAMPLE LOCATION
- TOTAL PCB CONCENTRATION <9.4 mg/kg
- H4 BUILDING COLUMN AND NUMBER
- CONCRETE TO BE REMOVED/REPLACED
- PROPOSED CAP AREA
- PROPOSED ENCAPSULANT/BARRIER

LEGEND

- PROPERTY LINE
- ROADWAY CENTER LINE
- CONCRETE SAMPLING GRID
- INTERIOR FENCE/WALL

20 10 0 20 40
SCALE, FEET

THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK & WHITE REPRODUCTION MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.

REFERENCE:

GOOGLE EARTH AERIAL PHOTOGRAPH, IMAGERY DATE MARCH 7, 2011.

314P0510–D04 Drawing Number

FIGURE 1

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DRAFT CLEANUP PLAN APPROACH

FORMER WESTINGHOUSE EQUIPMENT REPAIR FACILITY
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DRAWN BY	RAZ 03/01/2018
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SEAL

DATE

REVISIONS

REV	DESCRIPTION		
1	Revised:	Chkd:	Appr.:
2	Revised:	Chkd:	Appr.:
3	Revised:	Chkd:	Appr.: