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CERTIFIED MAIL

May 13, 2005
In reply, refer to 2005RC1448

BOEING

Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Attention: Information Technology Unit

Reference: Compliance File CI-6027 and NPDES No. CA0001309

Subject: 1st Quarter 2005 NPDES Discharge Monitoring Report Submittal– Santa Susana Field Laboratory

Dear Sir/Madam,

The Boeing Company, Rocketdyne Propulsion and Power Division hereby submits the enclosed discharge monitoring report (DMR) for the Santa Susana Field Laboratory (SSFL) for the 1st Quarter of 2005. This DMR provides the results of the sampling that occurred for the SSFL outfalls identified in Appendix A, Figure 1, of this report for the months of January through March of 2005 as required by National Pollutant Discharge Elimination System (NPDES) Permit No. CA0001309. This quarterly DMR provides all information and data, including rainfall summaries, liquid waste shipment summaries, and analytical reports. In addition, the California Water Code Section 13267 sampling that was required by the Regional Water Quality Control Board (RWQCB) at Outfalls 003 (Radioactive Materials Handling Facility) and Outfall 011 (Perimeter Pond) have also been included in this report.

FIRST QUARTER 2005 MONITORING REPORT SUMMARY

Due to the heavy rainfall (over 16 inches) that occurred during this reporting quarter, all outfalls were sampled at least once.with exception of Outfalls 013, 014, and 016 .In addition to the routine monitoring at these locations, the constituents that are required to be analyzed on an annual basis were also sampled at all outfall locations.

Review of the results indicate that although the facility was in compliance 98% of the time with discharge standards, there were twenty four exceedences of discharge standards. Yet none of these exceeded drinking water standards nor do they pose a risk to the neighboring communities. Many of the constituents detected at concentrations greater than their permit limit are naturally occurring and have been detected because surface water flows in natural drainages that contain bedrock, soil, sediment, and naturally occurring inorganic and organic materials. Sampling these drainages during storm events in contrast to sampling the effluent from wastewater treatment plants or other "end of pipe" processes typical in an NPDES permit is likely to result in naturally-occurring detections and potential exceedences of permit limits that Boeing has little or no control over. The analytical results included with

this report continue to provide evidence of the technical limitations inherent in setting stringent water quality limits for storm water releases. It supports Boeing's position that limits were established without sufficient data concerning other sources and/or establishment of background conditions. This position is also supported by the California Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, which specifies that the policy does not apply "to regulation of stormwater discharges". It is noted that the limits that Boeing is required to meet stem from this document.

Notwithstanding these issues, the RWQCB was notified during the quarter of analytical results that exceeded permit limits. A discussion of these exceedences is included in this report. In addition, as stipulated in the NPDES permit, written notifications were also made within 24 hours of receipt of data for those constituents that had been detected at locations where effluent limits have not been established.

DISCHARGE STATUS

Precipitation during the 1st Quarter 2005 at SSFL is shown for each month of the quarter, respectively, in Tables B-1, B-2, and B-3, provided as Appendix B. There was discharge associated with all storm water outfalls (Outfalls 001 through 011, and 018) at least once during the quarter. Outfall samples were typically analyzed at a "once per discharge event" frequency for routine parameters. As stated in the permit, if discharge occurs during February, annual sampling should be conducted. Therefore, annual sampling was conducted as required during February, as discharge occurred at most outfalls during this month. Due to excessive rainfall amounts, two-onsite sewage treatment plants (Outfalls 015 and 017) were required to be temporarily re-started for a period of approximately 1.5 days. The results of sampling at these STPs are provided in the data summary tables. There was no discharge associated with STP-2 (Outfall 016). With the exception of this temporary re-activation of STPs 1 and 3, the remaining sanitary wastes this quarter was shipped offsite for treatment and discharge. There was no discharge associated with the Bravo (Outfall 013) or APTF (Outfall 014) Test Stands. Cooling water associated with engine testing at the Alfa Test Stand (Outfall 012) were sampled four times during the 1st Quarter 2005. In addition, Outfall 012 was sampled for annual parameters during one of the tests in early March.

Due to excessive precipitation during the quarter, the access road to Outfall 001 was flooded, eroded, and impassable on February 25, 2005. The first date that access was available was on February 26, in which a surface water sample was then collected and analyzed.

LIQUID WASTE SHIPMENTS

The liquid waste shipments during the 1st Quarter 2005 is shown for each month of the quarter, respectively, as Tables C-1, C-2, and C-3, provided as Appendix C. This summary is provided as required in the NPDES permit.

DISCHARGE ANALYSES, AND DATA VALIDATION

All analyses of sampled discharges were conducted at a laboratory certified for such analysis by the appropriate agency in accordance with current EPA guidelines, procedures, or as specified in the monitoring program. Appendices D, E, and F contain analytical data summary tables for all outfalls, and Reporting Summary Notes. The tables typically identify

the outfall; the constituents evaluated (analytes), the date of sampling, the analytical result, and data validation qualifiers. The summary notes are a compilation of notes, abbreviations, and data validation codes that are found in the analytical data summary tables.

Data validation was performed on the analytical results and quality control elements were found to be within acceptable limits for all analytical methods reported, except as noted on the analytical summary tables. Laboratory analytical reports, including validation reports and notes, are included in Appendix G.

Attachment T-A of the NPDES permit presents the State Water Resources Control Board (SWRCB) minimum levels (MLs) for use in reporting and determining compliance with NPDES permit limits. The analytical laboratory achieved these MLs for this reporting period. However, some constituents' daily maximum and/or monthly average discharge limits in the NPDES permit are less than their respective MLs, and less than the laboratory reporting limit (RL). In cases where the permit limit is less than the RL and ML, the RL was used to determine compliance. The specific constituents that have permit limits that are less than the RL and ML are mercury (daily maximum permit limit of 0.10 and 0.13 ug/L, monthly average limit of 0.05 ug/L, RL of 0.2 ug/L), cyanide (monthly average limit of 4.3, RL of 5.0 ug/L, and Bis-(2-ethylhexyl) phthalate (daily maximum permit limit of 4.0, RL of 5.0 ug/L). Of these compounds, during the 1st Quarter 2005, only mercury was detected at a concentration equal to or greater than its RL.

SUMMARY OF NON-COMPLIANCE AND CORRECTIVE ACTIONS TAKEN

As required in the NPDES permit, during the 1st Quarter 2005, Boeing notified the RWQCB of constituents that were non-compliant. Twenty-four permit limit exceedences occurred during the quarter at seven drainage outfall locations, comprised of ten constituents: TCDD, mercury, manganese, chromium, iron, lead, sulfate, surfactants, oil and grease, and pH. In addition, effluent samples collected from the effluent at STPs 1 and 3 exceeded permit limits for total residual chlorine and chronic toxicity. Appendix F is a table that contains the summary of these permit limit exceedences.

As indicated in the exceedence summary table, Outfalls 001, 005, and 007 had TCDD exceedences; Outfalls 001, 002, and 004 had mercury exceedences; and Outfalls 015 and 017 (STPs) had total residual chlorine and chronic toxicity exceedences. The following constituents exceeded permit limits at one outfall only: chromium, manganese, surfactants, iron, and lead at Outfall 001; sulfate at Outfall 002; oil and grease at Outfall 009; and pH at Outfall 012.

Of the exceedences at drainage location outfalls during the quarter, a majority of them occurred at Outfall 001. Unlike other outfalls that experienced significant flow on more than one occasion in the 4th Quarter 2004 (for example, Outfall 002 experienced significant flow four times during the 4th Quarter 2004), Outfall 001 flowed only once during the 4th Quarter. Due to this lack of previous significant flow, the concentrations of constituents in surface water samples collected at Outfall 001 during the 1st Quarter 2005 show similar trends to constituent concentrations in surface water samples collected from other outfalls during the 4th Quarter 2004. Those trends typically show decreasing constituent concentrations over time. The trends observed in metals concentrations is due to excessive rainfall and the weathering of rocks and soils that releases naturally occurring metals into the sediment.

Drainage flow then transported these sediments on several days in February 2005. This increase in sediment transport, as evidenced by increased turbidity and total suspended solid concentrations, resulted in increased metals concentrations at Outfall 001, and to a lesser extent at other outfalls.

TCDD Discussion

On February 11 and 18 at Outfall 001, on January 3 at Outfall 005, and on February 18 at Outfall 007, TCDD was detected at concentrations that exceeded the permit limit of 2.8 x 10^{-8} ug/L . These values of TCDD ranged from 3.1 x 10^{-8} to 6.98 x 10^{-7} ug/L. It should be noted that while these limits have been exceeded in the permit, they are well below Federal and California Maximum Contaminant Levels (MCLs) for drinking water. The MCL for TCDD is 3.0 x10^{-5} ug/L or 30 parts per quadrillion and is established for only one form of TCDD, (2, 3, 7, 8-TCDD). The NPDES permit limit for this same constituent is 2.8 x 10^{-8} ug/L or 28 parts per quintillion. The analyses performed as required for the NPDES permit includes not only this one congener used for determination of safe drinking water, but 16 additional congeners. The results from this quarter analyzing all 17 congeners were shown to be below drinking water standards each time it was analyzed, and the one congener (2,3,7,8-TCDD) used for drinking water standards was not detected in any of the surface water samples.

The 4th Quarter 2004 SSFL NPDES report also noted that TCDD was found to exceed discharge standards. At that time an evaluation took place as to the potential causes for the exceedences. In reviewing the results and other material on the sources of TCDD, several observations were noted. These observations found that:

- TCDD is naturally present in soil.
- Soil is naturally present in surface water runoff.
- Large and recent storms increased soil runoff.
- The highest concentrations of TCDD in surface water were in NPDES outfalls on the north side of the facility.
- TCDD concentrations in northern outfalls were generally decreasing over time and rain events.
- It is well documented from other published sources that ash from brush fires contains TCDD (especially higher-chlorinated dioxin congeners).
- The recent Piru and other Southern California Fires, and prevailing wind direction brought a significant ash fall to the SSFL, especially in the northern areas.
- Known soil contaminant source areas at SSFL did not appear to be contributing to TCDD in surface water.

Based on these observations, it was concluded in the 4th Quarter 2004 reports that elevated TCDD levels were caused by non-facility-related sources and would be returning to the normal background ranges as the rainy season progressed.

The results contained in this 1st Quarter 2005 support these conclusions. While there were four additional TCDD exceedences reported in the 1st Quarter, two occurred at Outfall 001. As noted earlier in this letter, this outfall had flowed only once during the 4th quarter and only began continuous discharging in the 1st Quarter due to the volume of rain that occurred.

Three of the outfalls (003, 004, and 006) that exceeded discharge standards during the 4th quarter were seen to be in compliance this reporting quarter. Of the two outfalls on the northwest side of the facility noted to exceed limits this quarter, Outfall 005 had one exceedence in early January but in a level less than the previous quarter and has been in compliance for a remainder of the quarter. The last outfall, 007 indicated one exceedence this quarter, which is still consistent with the thought that this was a delayed effect since this outfall has a low volume of flow with heavy vegetation thus retarding sediment run-off. Based on the data seen this quarter, it appears that the conclusion developed in the 4th quarter is substantiated.

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Mercury Discussion

On January 18 at Outfalls 001 and 002, and on January 3 at Outfall 004, mercury was detected at concentrations of 0.26, 0.23, and 0.23 ug/L, respectively. While these three results have exceeded the permit limit, they are approximately 8 to 9 times less than the California drinking water standard (MCL) of 2.0 ug/L. The storm water run-off at these locations is not directly consumed and the concentrations of mercury detected in the surface water samples do not pose a health risk to the surrounding communities. As discussed in the Discharge Analysis and Data Validation section of this report, the permit limit for mercury is less than the RL, so in accordance with RWQCB policy, the RL, 0.20 ug/L, was used to establish compliance. In calculating the monthly averages for mercury at Outfalls 001 and 002, the median value was used because at least one value at each outfall was ND or DNQ (as stipulated in the NPDES Permit on Pages 39 and 40). Using median values, the resulting monthly averages were less than the RL of 0.20 ug/L.

The 4th Quarter 2004 SSFL NPDES report also noted that mercury was found to exceed discharge standards. As in the case of TCDD, an evaluation took place as to the potential causes for the exceedences. In reviewing the results and other material on the sources of mercury, several observations were noted. These observations found that:

- Mercury is naturally present in soil.
- Soil is naturally present in surface water runoff.
- Large and recent storms increased soil runoff.
- The mercury detected in all outfalls during both the 4th and 1st quarter contains a narrow and predictable range of 0.066 to 0.36 ug/L.
- Large and recent storms increased sediment runoff into the outfalls being monitored. This was indicated by the total suspended solids and settleable solids content.
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- In areas where there has been comprehensive remediation of soil (e.g., FSDF in Area IV, above NPDES Outfalls 005 and 006, Outfall 010 below B/203) mercury continues to be detected at low concentrations.

- Fires are a known source of mercury and may be deposited in the form of particulates down-wind of the fire. SSFL was down wind of the large Piru and Simi Valley fires. This fire also contributed to the mercury levels at the site.
-
- Ambient rainfall taken from samples before it reaches the ground have detected two instances of mercury during this reporting quarter. Samples of rainwater collected on January 7, 2005 and February 11, 2005 indicated DNQ values of

0.11 ug/L and 0.12 ug/L. Results of these ambient samples may be found in Appendix G.

As a result of the observations noted above, the presence of mercury in surface water at NPDES outfalls seem to be due to the presence of naturally occurring mercury in soil along with low level contributions from particulates in rainfall. The recent fires are a newer contributing source of mercury to the levels at the site. A total of 60 surface water samples were collected from compliance outfalls (Outfalls 001 through 007) and analyzed for mercury during this reporting quarter. Of the 60 samples analyzed, only three exceeded the NPDES permit limit for mercury.

Chromium Discussion

On February 11, chromium was detected at Outfall 001 at a concentration of 27 ug/L as compared to the permit limit of 16.3 ug/L. The NPDES permit limit established for this constituent is based on hexavalent chromium levels. However, the permit allows for the analysis of total chromium in lieu of hexavalent chromium with the understanding that for purposes of compliance, the discharger would assume the total chromium result is equivalent to hexavalent chromium concentration unless a replicate sample was analyzed for determination of actual hexavalent chromium concentration. When the initial sample on February 11 was analyzed for total chromium and indicated a potential violation of hexavalent chromium limits, a replicate sample was inadvertently not analyzed for the hexavalent chromium content. Therefore, the total chromium result is the only data available for that sampling date and was used for reporting purposes.

Subsequent to this exceedence, analysis of additional storm runoff samples for chromium on February 18 and 26, and March 5, 12, and 19 indicated that concentrations decreased to values less than the permit limit and reporting limit using the total chromium concentration procedures. It is thought that due to excessive rainfall, various constituents including naturally occurring chromium found in rocks and soil was transported in the sediment to the sampling outfall in the early days of February. This increase in sediment transport, as evidenced by increased turbidity and total suspended solid concentrations, resulted in increased chromium concentration on February 11. Therefore, based on review of the most recent data, the single non-compliant event for chromium is not representative of the discharge water quality at this location. Secondarily, since the analysis was only for total is it still undetermined if hexavalent chromium was even present.

Notwithstanding these issues, corrective action includes that all future analyses will include a hexavalent chromium verification analysis and a re-evaluation of BMPs including sediment control measures to improve sediment capture upstream from the sampling outfalls.

Manganese Discussion

Manganese was detected at Outfall 001 on February 11 and 18 at concentrations of 370 and 140 ug/l, respectively, as compared to its permit limit of 50 ug/L. Subsequent analysis of surface water samples for manganese on February 26, and March 5, 12, and 19 indicate concentrations that decreased to values less than the permit limit and reporting limit. Like in the case of chromium, excessive rainfall increased the uptake of naturally occurring manganese into the sediment, which was later deposited in the sampling outfall. Based on the data reviewed, these two non-compliant events for manganese are not representative of

the discharge water quality at this location. Further evaluation of BMPs and their implementation will be conducted and implemented as necessary and appropriate to mitigate the sediment loading at this location.

Iron Discussion

Iron was detected four times at Outfall 001 on February 11, 18, 26, and March 26 at concentrations of 27, 9.2, 0.45, and 0.42 mg/L. This is compared to its permit limit of 0.30 mg/L. Iron is also a naturally occurring constituent found in sediment and as such, concentrations appear to vary based on rainfall and sediment uptake at the monitoring locations. Surface water samples for iron on March 5, 12, and 19 indicate concentrations that were less than the permit limit. Therefore based on the data reviewed, these four non-compliant events for iron are thought to be from naturally occurring sources and a function of rainfall for which Boeing has little control. Further evaluation of BMPs and their implementation will be conducted and implemented as necessary and appropriate to mitigate the sediment loading at this location.

Lead Discussion

Lead was detected at Outfall 001 on February 11 at a concentration of 9.7 ug/L as compared to its permit limit of 5.2 ug/L. Based on the extensive history of compliance with lead discharge limits at Outfall 001 both prior to and after this event, this single non-compliant lead result appears not to be representative of the discharge water quality at this location and is more likely a result of heavy rainfall which increased sediment loading in the monitoring location. Further evaluation of BMPs and their implementation will be conducted and implemented as necessary and appropriate.

Surfactants Discussion

Surfactants (MBAs) were detected at Outfall 001 on February 11 at a concentration of 1.0 mg/L as compared to its permit limit of 0.50 mg/L. Based on the extensive history of compliance with surfactants discharge limits at Outfall 001 both prior to and after this exceedence, it has been determined that this result is not representative of the discharge water quality at this location. Further evaluation of BMPs and their implementation will be conducted and implemented as necessary and appropriate.

Sulfate Discussion

Sulfate was detected at Outfall 002 on February 4 at a concentration of 310 mg/L as compared to its permit limit of 300 mg/l. This has been the first time that sulfate has been detected above permit levels at this location. A review of the naturally occurring background levels for sulfate in this area indicates this concentration is within expected ranges and thus may be attributed to a combination of naturally occurring sources and the heavy rainfall experience this reporting quarter. Additional investigative steps will take place if this becomes a re-occurring issue.

Oil and Grease Discussion

Oil and grease was detected at Outfall 009 on January 11 at a concentration of 16 mg/L as compared to its permit limit of 15 mg/L. Review of past and subsequent sampling events indicate this also is a one time event. This single non-compliant event may be the result of sample protocols for oil and grease. This analytical procedure extracts all organic material

that is able to be solubilized in Freon. If the sample is rich in organic matter such as leaves, grasses and twigs, the extraction process could result in a high-biased value for oil and grease. Outfall 009, where this exceedence occurred is a relatively wooded area, and the sample was collected in a streambed. Naturally occurring organic material could have played a role in biasing this sample result. Notwithstanding this explanation, future plans include the possible addition of a designated sampling box and a sediment control structure if a structure can be designed that would have minimal disruption to the receiving stream.

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Sewage Treatment Plant Total Residual Chlorine and Chronic Toxicity Discussion

On January 10th and 11th -12 at Outfalls 015 and 017 (Sewage Treatment Plants 1 & 3), the following exceedences were noted:

Outfall	Constituent	Date	Results	Limit
015 (STP 1)	Tot. Resid. Cl	1/10/05	1 mg/L	.1 mg/L
015 (STP 1)	Chronic Toxicity	1/11/05	>16.0 TU_c	1.0 TU_c
017 (STP 3)	Tot. Resid.Cl	1/10/05	5 mg/L	.1 mg/L
017 (STP 3)	Tot. Resid.Cl	1/11/05	1 mg/L	.1 mg/L
017 (STP 3)	Chronic Toxicity	1/11/05	8.0 TU_c	1.0 TU_c

Over the past several years, these treatment plants have been used to provide only onsite holding capacity for later offsite disposal. Appendix C is a summary table that contains documentation of these wastes being transported offsite. Due to the unprecedented rainfall volumes this reporting quarter, subsurface water appears to have infiltrated into the system causing these sewage plants to become inundated with rainwater. Steps were implemented to ensure that the holding capacity would not be exceeded. These steps included the introduction of approximately ten 20,000-gallon capacity Baker Tanks to contain and store the excess water and the use of a vacuum truck to provide 24-hour transfer capability from the STPs to the Baker Tanks. Yet despite these mitigative measures, it became necessary to re-activate both sewage treatment plants and temporarily discharge from them for a period of less than two days. As part of the re-activation process, chlorine was added to disinfect the water. Based on the results of the sampling that took place once the plants were re-activated, it appears that over chlorination occurred resulting in a total residual chlorine concentration that exceeded the permit limit. It is also likely that the high chlorine concentration in the water resulted in exceeding the chronic toxicity value. Once the rain subsided, normal offsite shipments continued at a rate that allowed the sewage treatment plants to be placed back on standby. It is not expected that this scenario would re-occur due to additional steps taken to minimize infiltration of rainwater into the sewage treatment plants.

pH Discussion

On March 7 at Outfall 012 (Alfa Test Stand) the pH value of the discharge was 5.6. The permitted pH range for all outfalls is 6.5 to 8.5. The reason for the slightly acidic pH condition at this location has not been complete identified. Subsequent samples collected during the remainder of the quarter indicate
compliance with pH values. As such, this location will be more closely watched for any potential change in conditions that may result in a pH change of the effluent.

SITEWIDE CORRECTIVE ACTIONS TAKEN

In addition to the corrective actions noted for each constituent above, Best Management Practices (BMPs) to minimize the potential impact for sediment accumulation were implemented last quarter and continue during this quarter.

Specific BMPs that had been implemented during the 4th Quarter of 2004 were:

- All Outfalls – Installation of telemetry systems to provide improved flow monitoring capability.
- Outfall 003 – Installation of a stainless steel sample box and features to control sediment.
- Outfall 004 – Clearing trees/brushes around sampling points, plastic sheeting/tarp was repaired or replaced, sand bags and silt fencing were replaced, and installation of additional silt fencing.
- Outfall 005 - Replacement of plastic sheeting/tarp and sand bags.
- Outfall 006 – Installation of a stainless steel sample box, replacement of plastic sheeting/tarp, sand bags, and silt fencing, and installation of additional silt fencing.
- Outfall 007 – Installation of a stainless steel sample box and replacement of silt fencing.
- Outfall 008 - Subsequent to completing interim remedial measures to remove perchlorate-impacted sediment and bedrock in early 2004, a water-filled dam was placed at Outfall 008 to decrease sediment transport and better enable surface water samples to be collected. Due to the remoteness and difficult terrain in the vicinity of Outfall 008, an all-terrain vehicle is now being used to access this location.
- Outfall 010 - Interim measures were completed to remove mercury-impacted sediment on the hill slope above the outfall location. A sediment-settling basin, stainless steel sample box, and sediment control systems were installed.
- Outfall 018 – Initiated work on a sediment trap pilot study to evaluate its effectiveness at minimizing sediment transport and removing potential pollutants from surface water.

Based on the results of the 1st Quarter 2005 results, the BMPs implemented in the 4th quarter proved successful in minimizing the migration of constituents in surface water. However, improvements were made in the 1st Quarter to augment those already in place. They included:

- Outfall 003 – Replacement of vermiculite to maximize sediment removal capability.
- Outfall 004 – Review and modification of plastic sheeting and silt fencing and where necessary replace or repair sections of the system damaged by storms.
- Outfall 005 – Installation of activated carbon filter bags to improve sediment control; verification that plastic sheeting and silt fencing was intact and where necessary replaced or repaired.
- Outfall 006 - – Installation of activated carbon filter bags to improve sediment control; verification that plastic sheeting and silt fencing was intact and where necessary replaced or repaired.
- Outfall 008 – Removal of sediment that accumulated behind the water-filled dam to increase the sediment-control capacity of the dam.

- Outfall 009 - New improved access to outfall 009 by the construction of a stairway is planned and will be started once approval is given by Ventura County Public Works Department.
- Outfall 010 – Modified the sediment-settling basin and filter system to improve sediment capture rates.
- Outfall 018 – Continued work on implementing a sediment trap pilot study to improve capture rate of any sediments that may be leaving the R-2 pond system

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Many of the constituents detected at concentrations greater than their permit limit are naturally occurring and have been detected because surface water flowing in natural drainages, containing natural bedrock, soil, sediment, and naturally occurring inorganic and organic materials is being sampled. While BMPs controlling sediment transport have been implemented, and further evaluation of BMPs will be performed, storm water coming in contact with natural sediments is likely resulting in naturally occurring detections and exceedences of permit limits.

SUMMARY OF POTENTIAL HEALTH RISKS BASED ON CONSTITUENTS EXCEEDING PERMIT LIMITS

TCDD, mercury, other metals, surfactants, sulfate, oil and grease, and total residual chlorine in site surface water during 1st Quarter 2005 do not pose an unacceptable health risk. There were no detections of the congener 2, 3, 7, 8-TCDD. Therefore, there was no potential for the drinking water standard for TCDD to be exceeded. Mercury concentrations in the 1st Quarter 2005 samples did not exceed the drinking water MCL of 2.0 µg/L. Of the remaining constituents that exceeded permit limits, none of them exceeded their respective MCLs, if MCLs exist. Although the surface water monitored in this report is not used for drinking, the comparison of the results to the MCLs provides evidence that the discharge did not pose a risk to the neighboring communities.

California Water Code Section 13267 Sampling 2nd Status Report

In response to the May 20, 2004 RWQCB request that surface water samples be collected from Outfalls 003 and 011 (RMHF and Perimeter Pond, respectively), Boeing submitted a technical work plan to the RWQCB on August 31, 2004. The work plan described two studies that consisted of sample collection and analytical testing of surface water samples obtained from these outfalls. On January 12, 2005, the RWQCB provided unconditional approval of the Study 1 portion of the work plan, and conditional approval of Study 2.

The purpose of Study 1 is to evaluate potential differences between grab samples and composite samples, and consists of the collection of surface water samples during three wet weather discharges and three dry weather discharges. The purpose of Study 2 is to evaluate potential differences in radiological analytical results of filtered and unfiltered samples and consists of the collection of seven wet weather discharge samples and three dry weather discharge samples. The RWQCB letter stated that the six samples collected from Study 1 could be used in partial fulfillment of Study 2.

Based on the RWQCB's January 12, 2005 letter, the initiation of both Study 1 and Study 2 commenced during the 1st Quarter of 2005. However, samples collected prior to January 12 (January 4, 5, 11, and 12) did not satisfy the RWQCB's requirements. Therefore, the analytical results from these samples are included in Appendix E, but were not considered in fulfilling the study requirements.

As part of Study 1, wet weather discharge samples were collected from Outfall 011 (Perimeter Pond) on January 11, 25, February 18, and February 25, 2005. As required by the study, both grab and flow-weighted composite samples were collected and analyzed. As summarized in Appendix E, the grab and composite samples collected from Outfall 011 were analyzed for constituents in accordance with the RWQCB's requirements (Table 1 of the RWQCB's May 20, 2004 letter). The wet weather portion of Study 1 has been completed, and if discharge occurs from Outfall 011 during dry weather, up to three grab and flow-weighted composite samples will be collected and analyzed. The results of which will be reported in a subsequent quarterly DMR, and a technical report summarizing the completion and results of the studies will be provided separately.

As part of Study 2, discharge samples were collected from Outfall 003 (RMHF) and Outfall 011 (Perimeter Pond) on January 4, February 11, February 18, and March 5. As required by the study, surface water samples were collected and analyzed as both filtered and unfiltered samples for radiological constituent's gross alpha, gross beta, total combined Radium 226 and Radium 228, Strontium 90, and tritium. In addition, the filter paper and sediment remaining in the filter paper were analyzed for Cesium 137. As summarized in Appendix E, the filtered and unfiltered samples collected from Outfalls 003 and 011 were analyzed for constituents in accordance with the RWQCB's requirements (Table 1 of the RWQCB's May 20, 2004 letter and the RWQCB letter of January 12, 2005).

The summary tables included in Appendix E contain validated radiological data. Where data is identified as Pending in the tables, this indicates the analytical testing and reporting process and/or data validation process has not been completed for that specific analyte due to the extended time required to complete testing, prepare the report, and validate the data and report. The pending results, in the form of summary tables (in the same format as those included with this DMR), and their associated analytical and validation reports will be provided separately.

Study 2 will be completed subsequent to the completion of one more sampling episode from Outfall 003. The results of which will be reported in a subsequent quarterly DMR, and a technical report summarizing the completion and results of the studies will be provided separately.

FACILITY CONTACT

If there are any questions regarding this report or it enclosures, you may contact Mr. Paul Costa at (818) 586-9177.

CERTIFICATION

I certify under penalty of law that this document and all appendices were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant

penalties for submitting false information, including the possibility of fine and imprisonment for knowing violation.

Executed on the 13th of May 2005 at the Boeing Company, Rocketdyne, Santa Susana Field Laboratory Facility.

Sincerely,

BOEING

Steve Lafflam
Division Director
Safety, Health and Environmental Affairs

SL;pj

Appendices:

- A Figure 1 Storm Water Drainage System and Outfall Locations
- B 1st Quarter 2005 Rainfall Data Summary
- C 1st Quarter 2005 Liquid Waste Shipment Summary Tables
- D 1st Quarter 2005 Summary Tables, Discharge Monitoring Data, Outfalls 001 through 012, 015, 017, and 018
- E 1st Quarter 2005 Section 13267 Summary Tables, Discharge Monitoring Data, Outfall 003 and Outfall 011
- F 1st Quarter 2005 Summary of Permit Limit Exceedences
- G 1st Quarter 2005 Analytical Laboratory Reports and Chain-of-Custody

cc: State Water Resources Control Board-DMR Processing Center
Jim Pappas, Department of Toxic Substances Control
Robert Marshall, California State University – Northridge, Library
Dale Redfield, Simi Valley Library
Lynn Light, Platt Branch, Los Angeles Library
Stephen Baxter, Department of Toxic Substances Control

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