



California Regional Water Quality Control Board

Santa Ana Region



Linda S. Adams
Secretary for
Environmental Protection

3737 Main Street, Suite 500, Riverside, California 92501-3348
Phone (951) 782-4130 • FAX (951) 781-6288 • TDD (951) 782-3221
www.waterboards.ca.gov/santaana

Arnold Schwarzenegger
Governor

April 6, 2007

Ms. Tam M. Doduc, Board Chair
State Water Resources Control Board
1001 I Street, 25th Flr
P.O. Box 100
Sacramento, CA 95814

VIA EMAIL ONLY

RE: Advocacy Team's Detailed Description of Witness Testimony (SWRCB/OCC File A-1824)

Ms. Doduc:

This submittal is made in accordance with the Hearing Officer's direction set forth in her Ruling on Objections to Advocacy Team Submission dated April 2, 2007. Attached are the Advocacy Team's descriptions of witness testimony. We appreciate the additional guidance provided in the Second Revised Notice of Hearing regarding the expected content of those descriptions.

Members of the Advocacy Team will provide a presentation during the Advocacy Team's case-in-chief consisting mostly of a discussion of percipient witness deposition testimony and historical documents. To some extent, they may speak utilizing their professional expertise. To that extent their statements will consist of the information shown on the attachment marked "Advocacy Team Witness Statements."

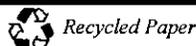
Additionally, the Advocacy Team intends to elicit testimony based on excerpts from depositions taken of witnesses including former employees of the parties named in the Cleanup and Abatement Order. The statements for those witnesses are set forth in the attachment marked "Non-Staff Witnesses."

Sincerely,

Kurt V. Berchtold
Assistant Executive Officer

Attachments

California Environmental Protection Agency



Ms. Tam M. Doduc

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April 6, 2007

cc (w/ attachments):

Peter R. Duchesneau, Esq.

Philip C. Hunsucker, Esq.

Robert D. Wyatt, Esq.

Scott A. Sommer, Esq.

Davin Diaz

Perchlorate Email Distribution List

California Environmental Protection Agency



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ADVOCACY TEAM WITNESS STATEMENTS

Robert Holub will present testimony that addresses the following subjects:

- Chilean nitrate does not appear to be a source of perchlorate at the 160-acre site, based on the following information:
 - Chilean nitrate historically was used as a fertilizer on citrus groves in the Inland Empire, which includes the Rialto area
 - Chilean nitrate contained perchlorate
 - The Advocacy Team believes that the historical use of Chilean nitrate is a source of low concentrations of perchlorate that appear to be widespread in groundwater throughout the Inland Empire in areas where citrus groves existed
 - Based on aerial photographs, citrus groves do not appear to have existed at or hydrologically upgradient of the Property

- The perchlorate plume emanating from property adjacent to the Mid-Valley Landfill is distinct from the plume emanating from the Property, based on the following information:
 - Groundwater data show that the eastern extent of the “County Plume” is sufficiently defined to reasonably conclude that there is minimal overlap, if any, with the western boundary of the perchlorate plume from the Property. Data from multi-port well PW-6, located within this “gap” between the two plumes, indicates that there are low concentrations of perchlorate throughout the water column. Data from monitoring wells N-1, N-5, N-11, all located northwest (upgradient) of PW-6, further confirm that there is a boundary zone between the plumes. The absence of perchlorate in West Valley Water District Well #33 and City of Rialto Well # 5, located southeast (downgradient) of PW-6, also verify the boundary area between the two plumes.

- The general characteristics of perchlorate, including:
 - Formed through the dissolution of perchlorate salts
 - Perchlorate salts occur naturally and are manufactured
 - Perchlorate salts are used in solid rocket fuel and in pyrotechnics
 - Perchlorate salts are very soluble in water, and the perchlorate ion is easily mobilized in water
 - Perchlorate is very stable in water and does not break down easily

- The Regional Board’s regulatory history regarding the “McLaughlin Pit,” including:
 - Apollo’s reports of waste discharge
 - Issuance, content and rescission of waste discharge requirements
 - Correspondence and inspection reports
 - Closure of the “McLaughlin Pit”

- Data and findings from investigations of perchlorate and TCE discharges at and from the Property, including:
 - Analytical results of soil samples collected from the assessment activities conducted by various parties at the Property
 - Analytical results of groundwater samples obtained from monitoring wells PW-1 through PW-4
 - Analytical results of groundwater samples obtained from monitoring wells CMW-01 through CMW-05
 - Analytical results of groundwater samples obtained from monitoring wells PW-5 through PW-9
 - Detections of perchlorate in shallow soils at locations where West Coast Loading and Goodrich conducted operations, and beneath the former “McLaughlin Pit”
 - Discharges of perchlorate and TCE at the Property have impacted groundwater at the Property
 - Discharges of perchlorate and TCE at the Property have migrated from the property
 - Data from the monitoring wells show that discharges of perchlorate and TCE at the Property have migrated at least 3.2 miles from the Property

- Impacts of perchlorate and TCE on the municipal water supply, including:
 - Analytical results of groundwater samples from municipal wells in the Rialto and Riverside-B Groundwater Management Zones
 - Perchlorate treatment systems installed on municipal wells
 - Current pumping status of the municipal wells
 - Data from the municipal wells indicate that discharges of perchlorate and TCE at the Property have migrated at least 4.5 miles from the Property
 - Perchlorate present in wells located up to about 6 miles from the Property is consistent with discharges of perchlorate from the Property
 - Geology and hydrology characteristics are consistent with the presence of perchlorate and TCE in the municipal wells

We reserve the right to examine this witness on subject matter not identified herein for rebuttal purposes.

Kamron Saremi will present testimony that addresses the following subjects:

- The perchlorate plume emanating from property adjacent to the Mid-Valley Landfill is distinct from the plume emanating from the Property, based on the following information:

- Groundwater data show that the eastern extent of the “County Plume” is sufficiently defined to reasonably conclude that there is minimal overlap, if any, with the western boundary of the perchlorate plume from the Property. Data from multi-port well PW-6, located within this “gap” between the two plumes, indicates that there are low concentrations of perchlorate throughout the water column. Data from monitoring wells N-1, N-5, N-11, all located northwest (upgradient) of PW-6, further confirm that there is a boundary zone between the plumes. The absence of perchlorate in West Valley Water District Well #33 and City of Rialto Well # 5, located southeast (downgradient) of PW-6, also verify the boundary area between the two plumes.
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 - Perchlorate salts occur naturally and are manufactured
 - Perchlorate salts are used in solid rocket fuel and in pyrotechnics
 - Perchlorate salts are very soluble in water, and the perchlorate ion is easily mobilized in water
 - Perchlorate is very stable in water and does not break down easily
- The Regional Board’s regulatory history regarding the “McLaughlin Pit,” including:
 - Apollo’s reports of waste discharge
 - Issuance, content and rescission of waste discharge requirements
 - Correspondence and inspection reports
 - Closure of the “McLaughlin Pit”
- Data and findings from investigations of perchlorate and TCE discharges at and from the Property, including:
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 - Analytical results of groundwater samples obtained from monitoring wells CMW-01 through CMW-05
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 - Detections of perchlorate in shallow soils at locations where West Coast Loading and Goodrich conducted operations, and beneath the former “McLaughlin Pit”
 - Discharges of perchlorate and TCE at the Property have impacted groundwater at the Property
 - Discharges of perchlorate and TCE at the Property have migrated from the property

- Data from the monitoring wells show that discharges of perchlorate and TCE at the Property have migrated at least 3.2 miles from the Property
- Impacts of perchlorate and TCE on the municipal water supply, including:
 - Analytical results of groundwater samples from municipal wells in the Rialto and Riverside-B Groundwater Management Zones
 - Perchlorate treatment systems installed on municipal wells
 - Current pumping status of the municipal wells
 - Data from the municipal wells indicate that discharges of perchlorate and TCE at the Property have migrated at least 4.5 miles from the Property
 - Perchlorate present in wells located up to about 6 miles from the Property is consistent with discharges of perchlorate from the Property
 - Geology and hydrology characteristics are consistent with the presence of perchlorate and TCE in the municipal wells
- Fires and explosions occurred at the Property. Ash and residue are typically present at the ground surface in areas where fires or explosions occur. Contaminants in such residue can be dissolved and mobilized by the use of fire suppression water. This fact pertains to any fires and explosions that occurred during the operations at the 160-acre Property, including those of WCLC and Pyro Spectaculars.

Board staff has participated in oversight of cleanup activities at industrial facilities where fires have occurred. It is common knowledge that chemical residue and ash are typically present after such fires have taken place. More specifically, a technical report prepared by TRC consultants, on behalf of the City of Rialto, verifies that high concentrations of perchlorate (up to 131,000 micrograms per kilogram) were present in ash and residue after a 2004 fire at the Astro Pyrotechnics facility, in an area with the same general soil characteristics as those at the Property, and located less than a mile away from the Property.

- Solubility and mobility of potassium perchlorate.

Based on the solubility of potassium perchlorate, up to 10,000 milligrams per liter could be dissolved by application of water to ash and residue during fire suppression and by subsequent rainfall over the burned areas.

- Infiltration of contaminants, including perchlorate salts, into the soil and groundwater.

The U.S. Geological Survey (2001) and GeoLogic Associates (2007) have estimated a porosity of 25 - 30% for the soils in the vicinity of the Property. We conclude that the perchlorate mobilized during application of fire suppression water or disposal of wastewater would readily move through the void spaces in the porous soil, and migrate to the groundwater.

- Goodrich's use of ammonium perchlorate as an oxidizer in solid rocket propellant.

We have reviewed the testimony of former Goodrich employees. We conclude that the oxidizer comprised approximately 70 percent of the solid rocket propellant in rocket motors that were manufactured by Goodrich in Rialto. We further conclude that the propellant for almost all of these rocket motors was ammonium perchlorate.

- Goodrich's burn pits at the Property.

We have reviewed the testimony of former employees of Goodrich's Rialto facility. We have examined aerial photographs, and have evaluated Environ's (2005) conclusions regarding the locations of Goodrich's former disposal pits, which are shown on Environ's aerial photograph overlays as Area C. We have observed field investigation activities at the former disposal areas, and have obtained and reviewed analytical results from field sampling at these locations.

Samples of the excavated polymer samples were collected by staff from the San Bernardino County Sheriff's Department, who conducted detonation and burn tests of the material. The result of the detonation test was negative, indicating non-explosive material; the result of the burn test was consistent with that of a synthetic rubber material. Samples of soil and ash from the disposal pit had concentrations of perchlorate up to 6,800 micrograms/kilogram.

We conclude that, during the time of its Rialto operations, all of Goodrich's waste materials were disposed of in an open, earthen burn pit. Residue from testing of the motors was also swept or hosed onto the bare ground. Based upon the high porosity of the coarse-grained soils, as described above, this water would move readily through the coarse-grained soils and toward the groundwater.

We further conclude that Goodrich used a second pit (Area D1) for the disposal and burning of waste, which contained perchlorate, and Goodrich

later used the D1 pit to discard several loads of solidified, excess polymer. The excess polymer was not burned, but was left in place and buried. Based upon the high porosity of the coarse-grained soils, as described above, perchlorate and other contaminants would move readily through the coarse-grained soils and toward the groundwater would move through the coarse-grained soil and toward the groundwater.

These same principles apply to disposal of waste by the fireworks company at the other earthen pits at the Property (Area D).

- Solubility and mobility of ammonium perchlorate.

Based on the solubility of ammonium perchlorate, up to 100,000 milligrams per liter could be dissolved by application of water to ash and residue in Goodrich's burn pit and next to Goodrich's test bay, and also by subsequent rainfall over the disposal areas.

- Solubility and mobility of trichloroethylene (TCE).

TCE is only slightly soluble in water (solubility is 1100 milligrams per liter). TCE moves through pore spaces in both the liquid phase and the vapor phase; this chemical diffuses readily through porous soil in the vapor phase, both laterally and vertically.

- We have reviewed and evaluated the soil characteristics at the Property, the field data that has been produced during investigations at former Goodrich disposal sites on the Property, and evidence in aerial photos, and have discussed above the physical and chemical properties of perchlorate salts and TCE. We conclude that perchlorate and TCE were disposed of by Goodrich at the Property, and these contaminants have migrated into the vadose zone and to the groundwater.
- We have reviewed historical records that indicate overflow of wastewater occurred at the McLaughlin Pit. We have evaluated the soil characteristics, including the high porosity, and field data from recent soil and groundwater investigation activities at the Property. We conclude that the wastewater released from the McLaughlin infiltrated through the porous soils at the Property.

Soil data obtained during the drilling of the borehole at location CMW-01 demonstrate that, as a result of infiltration of water at the site of the McLaughlin Pit, perchlorate was mobilized both laterally and vertically away from the pit.

We reserve the right to examine this witness on subject matter not identified herein for rebuttal purposes.

Ann Sturdivant will present testimony that addresses the following subjects:

- Information regarding potassium perchlorate waste at WCLC, including production contract documents, a June 1956 Bill of Materials for potassium perchlorate, and the estimated percentages of scrap and spoilage during manufacturing at WCLC.

Staff has reviewed the contract documents for WCLC's production of photoflash cartridges and groundburst simulators, including the number of units manufactured and the dates of production. We have also examined a bill of materials specifying that 8,500 pounds of potassium perchlorate was delivered to WCLC on 6/25/56. WCLC's production of photoflash cartridges ended in May 1956. Based on the time frames specified in WCLC's contracts, testimony of former employees which verifies that photoflash cartridges and groundburst simulators were produced during the time periods specified in the contract documents, we conclude that the timing of the delivery on 6/25/56 coincides with WCLC's need for potassium perchlorate to use in manufacturing of the groundburst simulator.

The WCLC contract documents also specify the estimated percentage of scrap and spoilage. Testimony of former WCLC employees verifies that the estimated scrap and spoilage represented the expected loss of material during production of the photoflash cartridges and the groundburst simulators. We conclude that at least 2,257 pounds of potassium perchlorate was expected to be lost as scrap or spoilage during WCLC's production of the photoflash cartridges and groundburst simulators.

We have reviewed WCLC's SOPs, and the testimony of former employees, and we conclude that spilled powder and residue, including specifically potassium perchlorate, was wiped up with mops and rags throughout the day during production of the photoflash cartridges and groundburst simulators. We further conclude that the wastewater that was then dumped on the bare ground would have infiltrated into the porous soil at the Property.

- Fires and explosions occurred at the Property. Ash and residue are typically present at the ground surface in areas where fires or explosions occur. Contaminants in such residue can be dissolved and mobilized by the use of fire suppression water. This fact pertains to any fires and explosions that occurred during the operations at the 160-acre Property, including those of WCLC and Pyro Spectaculars.

Board staff has participated in oversight of cleanup activities at industrial facilities where fires have occurred. It is common knowledge that chemical residue and ash are typically present after such fires have taken place. More specifically, a technical report prepared by TRC consultants, on behalf of the

City of Rialto, verifies that high concentrations of perchlorate (up to 131,000 micrograms per kilogram) were present in ash and residue after a 2004 fire at the Astro Pyrotechnics facility, in an area with the same general soil characteristics as those at the Property, and located less than a mile away from the Property.

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Based on the solubility of potassium perchlorate, up to 10,000 milligrams per liter could be dissolved by application of water to ash and residue during fire suppression and by subsequent rainfall over the burned areas.

- Infiltration of contaminants, including perchlorate salts, into the soil and groundwater.

The U.S. Geological Survey (2001) and GeoLogic Associates (2007) have estimated a porosity of 25 - 30% for the soils in the vicinity of the Property. We conclude that the perchlorate mobilized during application of fire suppression water or disposal of wastewater would readily move through the void spaces in the porous soil, and migrate to the groundwater.

- Solvents were used at WCLC. Solvent residue would have been present in drums that were used for disposal of solvent-soaked rags, and buried on-site at WCLC.

We have reviewed the eyewitness testimony of former WCLC employees, and conclude that solvent storage drums were buried at WCLC. Based on staff's experience in the oversight of cleanup activities at former drum storage, disposal and spill sites, we know that chemical residue can and does remain in such drums, and leakage can and does occur.

- Goodrich's use of ammonium perchlorate as an oxidizer in solid rocket propellant.

We have reviewed the testimony of former Goodrich employees. We conclude that the oxidizer comprised approximately 70 percent of the solid rocket propellant in rocket motors that were manufactured by Goodrich in Rialto. We further conclude that the propellant for almost all of these rocket motors was ammonium perchlorate.

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We further conclude that Goodrich used a second pit (Area D1) for the disposal and burning of waste, which contained perchlorate, and Goodrich later used the D1 pit to discard several loads of solidified, excess polymer. The excess polymer was not burned, but was left in place and buried. Based upon the high porosity of the coarse-grained soils, as described above, perchlorate and other contaminants would move readily through the coarse-grained soils and toward the groundwater would move through the coarse-grained soil and toward the groundwater.

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- We have reviewed historical records that indicate overflow of wastewater occurred at the McLaughlin Pit. We have evaluated the soil characteristics, including the high porosity, and field data from recent soil and groundwater investigation activities at the Property. We conclude that the wastewater released from the McLaughlin infiltrated through the porous soils at the Property.

Soil data obtained during the drilling of the borehole at location CMW-01 demonstrate that, as a result of infiltration of water at the site of the McLaughlin Pit, perchlorate was mobilized both laterally and vertically away from the pit.

We reserve the right to examine this witness on subject matter not identified herein for rebuttal purposes.

NON-STAFF WITNESSES

John Allegranza

Mr. Allegranza is a former materials handler for WCLC and worked at WCLC's Rialto facility. Mr. Allegranza will testify regarding the manufacturing of various WCLC products and use of TCE, and discharge of TCE into environment at WCLC's Rialto facility. The testimony the Advocacy Team intends to elicit from Mr. Allegranza includes but is not limited to that located at the following page numbers of Mr. Allegranza's deposition: (vol.1) 26:5-26:11, 27:23-28:21, 35:15-35:19, 39:12-39:21, 40:2-40:16, 41:7-41:7-22, 42:14-42:23, 102:7-104:11, 129:17-130:19, (vol.2) 8:7-9:13, 46:9-48:2, 54:14-54:23, 63:13-67:7, 71:11-71:25, 72:12-73:5, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

William Ashurst

Mr. Ashurst is a former machine operator and materials handler from WCLC. He will testify regarding general operating procedures at the Rialto plant as well as his knowledge of perchlorate disposal practices during his tenure. The testimony the Advocacy Team intends to elicit from Mr. Ashurst includes but is not limited to that located at the following page numbers of Mr. Ashurst's deposition: 18:5-19:15; 26:9-27:19; 52:16; 53:3; 101:23-102:15 (2003 RWQCB Deposition); *see also* 58:4-59:12; 77:24-78:11; 89:24-90:13 (District Court Deposition). The subject areas covered in the deposition are incorporated by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Margot Cartagena

Ms. Cartagena is former facilities manager for Pyrotronics and American Promotional Events, Inc. Ms. Cartagena will testify about her observations of Pyro Spectaculars' operations and testing of aerial shells. The testimony the Advocacy Team intends to elicit from Ms. Cartagena includes but is not limited to that located at

the following page and line numbers of Ms. Cartagena's deposition: 70:1-25, 74:1-74:18, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Arnold Clayton

Mr. Clayton is a former product assembler for WCLC and worked at WCLC's Rialto facility. He will testify regarding his knowledge of WCLC's photoflash cartridge manufacturing processes and general cleaning practices. He will also testify as to his knowledge of perchlorate disposal procedures. The testimony the Advocacy Team intends to elicit from Mr. Clayton includes but is not limited to that located at the following page numbers of Mr. Clayton's deposition: 22:10-23:22, 24:9-25:14, 26:18-27:8, 27:20-23; 28:15-30:1, 30:5-30:11, 30:17-31:12, 30:25-31:8, 31:13-32:2, 32:3-33:8, 32:23-33:8, 57:11-58:6, 57:16-59:18, 58:7-60:3, 63:8-64:25, 68:4-68:15, 79:14-80:4, 80:10-80:20, 81:8-81:16, 81:17-81:20, 82:14-83:13, 82:22-83:13, 83:14-85:7, 85:13-86:5, 100:13-100:21, 101:22-102:3, 102:4-102:19, 103:16-104:4, 107:15-107:23, 228:20-228:25, 240:23-241:17, 246:14-247:6, 260:18-260:23, 261:16-264:1, 283:14-284:102, 285:8-285:24, 289:1-289:4, 291:25-292:7, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Raymond Davis

Raymond Davis is a former night foreman, foreman and superintendent of assembly for photoflash cartridges for West Coast Loading Corporation ("WCLC"). Mr. Davis will testify about the use and disposal of potassium perchlorate in the manufacturing and testing of photo flash cartridges and other WCLC products. Mr. Davis will further testify about the cleanup and disposal practices for potassium perchlorate that was attendant to WCLC's manufacturing process. The testimony the Advocacy Team intends to elicit from Mr. Davis includes but is not limited to that located at the following page numbers of Mr. Davis' deposition: 25:14-25:24, 33:1-33:4, 33:23-34:13, 35:11-36:7, 39:1-40:25, 53:12-54:20, 61:4-61:8, 62:8-65:17, 67:5-67:22, 67:24-69:4, 82:23-86:9, 88:7-89:7, 90:24-91:10, 92:14-94:1, 94:2-95:6, 102:8-102:12, 105:1-105:25, 106:1-106:25, 107:1-107:25, 107:19-108:1, 109:11-110:9, 110:1-112:25, 111:4-112:16, 114:1-114:25, 114:3-115:17, 116:21-118:6, 117:1-117:25, 119:9-120:16, 119:1-

121:25, 119:11-129:9, 122:8-124:16, 122:16-124:16, 123:1-124:25, 128:14-130:20, 132:6-133:1, 142:11-144:7, 146:25-147:24, 149:25-153:6, 151:1-152:25, 153:1-153:25, 155:1-155:25, 158:1-159:25, 161:1-165:25, 163:1-165:9, 184:7-185:2, 185:1-185:25, 206:1-206:10, 207:3-207:14, 207:9-208:9, 208:11-209:22, 211:19 -213:22, 218:1-219:25, 220:1-220:25, 222:7-222:24, 262:9 -265:11, 265:15-267:15, 269:19-270:24, 272:1-272:11, 324:4-326:2, 341:1-345:5, 344:2-345:1, 344:2-346:6, 347:22-352:7, 350:1-350:25, 354:18-355:21, 366:4-367:20, 369:3-369:20, 369:1-369:25, 372:23-373:5, 373:20-373:23, 373:1-373:25, 375:2-376:4, 441:24 -442:18, 450:12-452:21, 484:8-489:9, 493:19-494:12, 495:3-495:17, 496:19-498:21, 500:7-503:8, 504:1-508:10, 544:8-546:19, 793:21-794:21, 799:8-799:15, 803:6-803:17, 803:23-804:2, 806:25-807:11, 827:20-828:22, 973:16-974:19, 978:9-978:17, 977:3-977:6, 1012:5-1012:10, 1014:3-1014:14, 1060:2 -1060:24, 1090:8-1090:15, 1091:4-1091:17, 1091:19-1091:24, 1098:1-1098:17, 1143:11-1144:3, 1178:9-1179:14, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Frank Gardner

Frank Gardner was a former process chemist for WCLC. In addition to his job duties as chemist, Mr. Gardner was responsible for enforcing safety procedures and standard operating procedures at WCLC in Rialto. Mr. Gardner will testify regarding the use of potassium perchlorate at WCLC, and WCLC standard operating procedures with respect to the manufacturing and cleanup process for photoflash powder and potassium perchlorate. The testimony the Advocacy Team intends to elicit from Mr. Gardner includes but is not limited to that located at the following page numbers of Mr. Gardner's deposition: 36:11-36:17, 45:4-45:8, 54:4-54:7, 59:6-59:13, 62:7-62:15, 88:13-88:16, 90:1-90:4, 92:1-92:13, 98:8-98:13, 113:1-113:10, 121:7-121:16, 126:19-126:22, 127:2-127:10, 144:1-145:25, 175:14-175:16, 176:8-176:11, 183:7-183:16, 185:24-186:2, 187:9-188:4, 188:14-188:16, 195:21-195:24, 211:1-211:17, 215:7-215:15, 230:6-230:24, 243:13-243:22, 389:1-389:23, 506:9-506:18, 519:14-519:19, 527:7-527:18, 529:1-529:18, 535:7-535:16, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Jimmie Haggard

Jimmie Haggard is a former production employee for Goodrich Corporation. Mr. Haggard will testify about his personal experience loading rocket motors at Goodrich's facility in Rialto. Mr. Haggard will further testify regarding the grinding of ammonium perchlorate, the mixing of perchlorate-based propellant, the trimming of solid rocket propellant from finished motors, and the cleanup process for all of the foregoing. The testimony the Advocacy Team intends to elicit from Mr. Haggard includes but is not limited to that located at the following page numbers of Mr. Haggard's deposition: 17:19-18:5, 18:20-20:11, 28:1-28:22, 40:18-42:16, 49:18-50:17, 51:23-53:22, 53:23-55:13, 59:16-60:3, 62:22-63:10, 66:21-67:7, 68:10-68:22, 69:21-71:24, 71:25-74:8, 74:24-77:22, 78:16-79:21, 81:2-83:8, 89:4-92:17, 93:22-94:24, 99:22-100:18, 101:18-104:22, 248:22-250:17, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Harry Hescox

Mr. Hescox was Executive VP of Clipper Fireworks and President of Pyrotronics Corp until 1986. Mr. Hescox will testify generally about his experience with Pyro Spectaculars, Inc. ("PSI") before it was sold to Mr. Souza, and PSI's operation post sale including disposal of perchlorate containing aerial shells in the McLaughlin Pit. The testimony the Advocacy Team intends to elicit from Mr. Hescox includes but is not limited to that located at the following page and line numbers of Mr. Hescox's deposition: 37:3-37:9, 47:3-49:12, 79:4-81:1, 105:9-105:17, 197:22-200:25, 198:17-199:24, 200:20-200:23, 201:7-204:17, 219:1-231:25, 175:15-176:9, 175:15-176:20, 199:19-200:9, 205:13-206:4, 206:13-207:5, 314:1-316:25, 360:4-362:21, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

John Melito

Mr. Melito is WCLC's former chief process inspector. Mr. Melito will testify regarding WCLC manufacturing processes. The testimony the Advocacy Team intends

to elicit from Mr. Melito includes but is not limited to that located at the following page and line numbers of Mr. Melito's deposition: 402:1-403:25, which is incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Joane Pfarr

Ms. Pfarr is a former assembly line worker from WCLC. She will testify about her knowledge of general perchlorate powder handling as well as general cleaning practices at the Rialto plant. The testimony the Advocacy Team intends to elicit from Ms. Pfarr includes but is not limited to that located at the following page numbers of Ms. Pfarr's deposition: 28:20-29:24; 32:14-33:15, 40:7-41:19, 53:15-54:19, 55:1-22; 60:16-62:10; 95:16-96:19; 112:14-113:21, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Ronald Polzien

Ronald Polzien is a former Test Engineer for Goodrich Corporation in Rialto. Mr. Polzien will testify about the use of ammonium perchlorate in Goodrich Corporation's rocket motor manufacturing and testing at the 160-acre Parcel. Mr. Polzien will also testify regarding Goodrich Corporation's procedures for disposing of ammonium perchlorate and trichloroethylene (TCE) in an earthen burn pit. The testimony the Advocacy Team intends to elicit from Mr. Polzien includes but is not limited to that located at the following page and line numbers of Mr. Polzien's deposition: 19:11-21:13, 22:11-23:10, 48:13-48:21, 49:24-51:20, 87:1-87:24, 89:13-91:10, 103:18-106:4, 106:15-108:2, 109:22-110:8, 121:3-123:3, 123:5-123:19, 125:2-126:1, 126:12-127:3, 128:22-130:15, 131:10-132:4, 133:24-134:24, 136:18-137:7, 139:17-141:22, 146:25-147:23, 153:22-154:23, 199:6-201:11, 203:19-204:1, 215:20-215:22, 217:7-218:16, 220:21-221:4, 229:12-229:23, 232:19-233:1, 233:13-233:24, 234:8-234:11, 251:5--252:12, 253:11-253:14, 262:24-263:2, 268:3-268:18, 272:4-272:22, 273:21-275:6, 275:19-276:4, 276:24-277:11, 491:2-491:18, 779:20-780:1, 1049:-1049:22, 1229:17-1230:11, 1230:22-1231:4, 1232:17-1233:24, 1295:11-1297:24, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation

and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Donald Ransom

Mr. Ransom is a former industrial engineer from KLI and also worked at the WCLC facility in Rialto. He will testify about the initial construction of the Rialto plant and about the manufacturing process at WCLC. He will also testify regarding his knowledge of perchlorate disposal procedures. The testimony the Advocacy Team intends to elicit from Mr. Ransom includes but is not limited to that located at the following page numbers of Mr. Ransom's deposition: 91:7-92:18; 93:3-15; 106:14-109:4; 117:8-21; 118:12-120:3; 145:18-146:15; 166:11-24; 172:22-173:10. The subject areas covered in the deposition are incorporated by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Eugene Sachara

Mr. Sachara is a former employee of Goodrich Corporation. Mr. Sachara will testify about manufacturing and testing process for various rocket motors at Goodrich's Rialto facility. The testimony the Advocacy Team intends to elicit from Mr. Sachara includes but is not limited to that located at the following page and line numbers of Mr. Sachara's deposition: 53:10-54:4; 56:15-57:10, 59:15-60:17, 126:10-128:16, 198:15-21, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Charles Skaggs

Mr. Skaggs is a former fire chief for the City of Rialto. Mr. Skaggs will testify about his investigation of explosive incidents at Pyro Spectaculars' facility in Rialto. The testimony the Advocacy Team intends to elicit from Mr. Skaggs includes but is not limited to that located at the following page and line numbers of Mr. Skaggs' deposition:

84:17-86:23, which is incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Fred Skovgard

Mr. Skovgard is a former engineer for WCLC. He will testify regarding the use of perchlorate at Rialto in regards to the manufacturing of photoflash cartridges. He will testify regarding his knowledge of potassium perchlorate use in various WCLC products and the facility's Standard Operating Procedures and employees' adherence to those procedures. He will further testify of disposal practices at WCLC. The testimony the Advocacy Team intends to elicit from Mr. Skovgard includes but is not limited to that located at the following page numbers of Mr. Skovgard's deposition: 6:9-16:9-17:3; 43:7-5:7; 109:15-10:18; 118:17-20:12, 141:11-144:14; 160:15-62:12, 253:17-254:6; 257:18-259:10; 276:25-278:11; 317:23-319:4; 347:3-350:11; 353:10-356:20; 383:24-384:2; 414:11-25; 768:16-19, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

James Souza

James Souza is the president of Pyro Spectaculars. Mr. Souza will testify regarding Pyro Spectaculars operations at its Rialto facility including the testing and disposal of fireworks. The testimony the Advocacy Team intends to elicit from Mr. Souza includes but is not limited to that located at the following page and line numbers of Mr. Souza's deposition: 99:18 00:9, 103:7-104:17, 122:8-122:19, 143:16-146:12, 163:18-200:10, 76:11-177:19, 184:16-185:15, 197:13-198:25, 200:14-204:15, 387:13-409:7, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Dwight Wever

Dwight Wever is a former Production Manager for Goodrich Corporation in Rialto. Mr. Wever assisted in opening Goodrich's Rialto plant and stayed through its closure. Mr. Wever will testify about the use of ammonium perchlorate and TCE at Goodrich's Rialto facility. Mr. Wever will further testify regarding the production process for LOKI and Sidewinder rocket motors, and the cleanup and disposal of ammonium perchlorate associated with the production process. The testimony the Advocacy Team intends to elicit from Mr. Wever includes but is not limited to that located at the following page and line numbers of Mr. Wever's deposition: 19:22-22:12, 25:5-25:10, 26:10-27:17, 26:11-27:17, 29:13-30:2, 33:11-33:17, 35:13-36:8, 36:25-37:11, 38:19-38:25, 40:14-42:23, 44:23-45:11, 45:12-45:25, 49:6-49:20, 51:18-51:24, 52:11-52:19, 57:22-58:15, 58:6-59:21, 66:16-67:14, 68:7-69:12, 116:17-116:19, 117:8 -118:4, 159:2-159:15, 164:5-164:20, 230:24-231:11, 246:15-246:19, 254:5-255:8, 269:11-271:23, 280:2-281:12, 321:9-321:23, 347:7-347:24, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Cleland Nelson

Mr. Nelson is a former accounting manager for Kwikset Locks, Inc ("KLI"). He will testify about KLI's general accounting procedures and the relationship between KLI and American Hardware Corporation ("AHC"). The testimony the Advocacy Team intends to elicit from Mr. Nelson includes but is not limited to that located at the following page numbers of Mr. Nelson's deposition: 183:18-189:19; 225:10-226:9; 232:6-233:16; 270:8-272:12; 293:24-303:11; 323:14-335:3; 389:6-392:2; 725:9-727:17; 744:11-745:20; 859:3-24; 900:7-903:2; 915:6-24; 925:3-927:14; 1120:6-1121:2, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Robert Parrett

Mr. Parrett is the former plant manager at KLI and a former member of its Board of Directors. He will testify regarding the daily plant operations at KLI and AHC. The testimony the Advocacy Team intends to elicit from Mr. Parrett includes but is not

limited to that located at the following page numbers of Mr. Parrett's deposition: 80:23-83:22; 89:24-90:1; 92:6-24; 93:13-95:14; 99:11-100:24; 106:10-107:4; 169:10-18; 305:16-25, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Robert Hutchinson

Mr. Hutchinson is a former accountant and director for KLI. He will testify regarding the stock exchange between KLI and AHC as well as subsequent operations at the companies. The testimony the Advocacy Team intends to elicit from Mr. Hutchinson includes but is not limited to that located at the following page numbers of Mr. Hutchinson's deposition: 53:4-20; 117:5-17; 145:3-20; 150:16-151:3; 156:2-13; 403:15-404:2; 433:12-434:2; 436:4-23; 587:8-25; 604:25-606:11, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Edgar Steinmeyer

Mr. Steinmeyer is a former professional quality engineer with KLI. He will testify regarding the operations and practices at KLI and AHC. The testimony the Advocacy Team intends to elicit from Mr. Steinmeyer includes but is not limited to that located at the following page numbers of Mr. Steinmeyer's deposition: 56:10-57:4; 66:11; 73:12; 83:21-86:12; 103:20-109:25; 117:10-13; 130:19-133:8, which are incorporated herein by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Earl Robinson

Mr. Robinson is a former assembly line worker from KLI. He will testify regarding KLI's manufacturing of defense products. His testimony will also include his knowledge of the chemicals used in the process and cleaning practices employed. The testimony the Advocacy Team intends to elicit from Mr. Robinson includes but is not limited to that

located at the following page numbers of Mr. Robinson's deposition: 24:10-24:17; 33:7-33:11; 42:12-43:11; 51:6-52:14; 61:17-62:4; 63:22-72:5; 95:21-96:22; 98:4-99:1; 99:25-100:12; 100:13-101:18; 101:20-102:2; 102:3-102:10; 102:12-104:10; 105:2-107:17; 109:8-112:23; 130:2-130:13; 132:6-138:7; 142:2-142:21; 152:24-153:16; 155:7-175:14; 185:1-189:16; 191:13-193:22; 198:6-205:16; 210:1-210:13; 213:3-215:15; 221:11-222:5; 222:7-223:22; 228:3-229:7; 230:6-231:4; 231:6-232:6; 244:23-245:4; 252:14-253:5; 267:22-270:6. The subject areas covered in the deposition are incorporated by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.

Mildred Wilkins

Ms. Wilkins is a former assembly line worker for WCLC. She will testify regarding her experience with loading photoflash cartridges. She will also testify as to her knowledge of perchlorate disposal practices and procedures at the Rialto plant. The testimony the Advocacy Team intends to elicit from Ms. Wilkins includes but is not limited to that located at the following page numbers of Ms. Wilkins' deposition: 34:13-35:4; 38:3-40:4; 48:22-50:24; 88:3-94:10; 97:15-98:21; 115:21-118:25; 119:5-122:7; 139:25-141:6; 154:1-20. The subject areas covered in the deposition are incorporated by reference. We reserve the right to supplement this based on the case submissions of Emhart Industries, Inc., Kwikset Locks, Inc., Kwikset Corporation, Black & Decker (U.S.) Inc., Black & Decker Inc., Pyro Spectaculars and Goodrich Corporation and further reserve the right to examine this witness, or offer any portion of this witness' deposition transcript, on subject matter not identified herein for impeachment and rebuttal purposes.