WEBVTT 1 00:00:12.240 --> 00:00:17.400 Debora Browning: Good evening and welcome to the ethylene oxide, EtO zoom Community meeting for 2 00:00:17.400 --> 00:00:17.580 Debora Browning: The 3 00:00:18.029 --> 00:00:27.150 Debora Browning: [Eastman] chemical company [in] Longview Texas, my name is Deborah Browning with EPA and I'm the moderator for the evening. Next slide please. 4 00:00:31.860 --> 00:00:32.490 Tim Aldredge: have yourself. 5 00:00:37.260 --> 00:00:43.410 Debora Browning: For those attendees requiring language interpretation services instructions are posted on the screen. б 00:00:43.860 --> 00:00:50.070 Debora Browning: This will assist our participants to enable the appropriate language preference for English or Spanish services. 7 00:00:50.490 --> 00:01:03.330 Debora Browning: For those interested, the Spanish version of this presentation is available in the chat box, I would like to welcome and introduce our Spanish interpreters Xiomara Crespo and Nestor Lima. 8 00:01:04.140 --> 00:01:10.890 Debora Browning: For those requiring American sign language services, the interpreter window is available to pin the interpreter on the 9 00:01:10.890 --> 00:01:21.090 Debora Browning: screen, I would like to welcome and introduce the American sign language interpreters Rebecca Adams and Catherine Montoya. Next slide. 10 00:01:23.850 --> 00:01:32.430 Debora Browning: This is a zoom meeting and due to the size of the audience all participants are in listening mode only except for the speakers microphones.

11 00:01:33.180 --> 00:01:43.800 Debora Browning: At the end of the presentations EPA will address questions during the question and answer session; participants may write the questions in the chat box during the presentations. 12 00:01:44.220 --> 00:01:55.170 Debora Browning: However, the questions will not be answered until the Q and A session. Please include your name and affiliation in the chat box, so we can be aware of your participation in this meeting. 13 00:01:55.530 --> 00:01:56.550 Debora Browning: Next slide please. 14 00:01:59.460 --> 00:02:14.760 Debora Browning: Your comments are very important to us. The meeting is focused on hearing from the citizens in the Longview area near the Eastman chemical facility; any questions related to the industry permits, any enforcement or legal actions, or about other areas 15 00:02:15.540 --> 00:02:15.990 Ivan Williams: Little. 16 00:02:16.680 --> 00:02:32.550 Debora Browning: will not be addressed during this Community meeting. You may send these questions or other questions and comments related to ethylene oxide, the EPA Region Six email box for response at our six underscore 17 00:02:32.820 --> 00:02:35.850 Debora Browning: ethylene oxide@epa.gov. 18 00:02:36.870 --> 00:02:49.590 Debora Browning: This event is being recorded and will be posted at the to the EPA Region six website for ethylene oxide. These web page links will be posted in the chat box as an announcement on the right side of your monitor. 19 00:02:53.100 --> 00:02:53.850 Debora Browning: Next slide. 20 00:02:55.980 --> 00:03:04.260 Debora Browning: For zoom meeting best practices, during our Q&A session, in addition to writing the question in the chat box, you may raise your hand to ask a question.

21 00:03:04.590 --> 00:03:15.000 Debora Browning: Those participants dialing in will also have an opportunity to ask a question during the Q and A session; when not speaking, please mute your microphone. Next slide. 22 00:03:17.580 --> 00:03:26.640 Debora Browning: This slide shows an example of where to find the mute button in the buttons at the bottom of your screen for the chat box and to raise your hand; next slide. 23 00:03:37.200 --> 00:03:50.040 Debora Browning: EPA would like to welcome our Texas Congressional delegation, state and local offices and the environmental justice stakeholders, along with members of the community attending and participating in this meeting. 24 00:03:51.120 --> 00:03:59.160 Debora Browning: In partnership with the Texas Commission on Environmental Quality TCEQ, EPA would like to introduce Dr Michael Honeycutt, 25 00:03:59.460 --> 00:04:00.570 Debora Browning: TCEQ 26 00:04:00.720 --> 00:04:03.840Debora Browning: Chief toxicologist, to make welcoming comments. 27 00:04:31.620 --> 00:04:40.230 Michael Honeycutt: Cannot unmute myself. Okay, here we go. I'm Michael I'm Dr Michael Honeycutt Chief Toxicologist for the TC[E]Q and I'm happy to be here to listen, thank you. 2.8 00:04:45.720 --> 00:04:46.530 Debora Browning: Thank you, Dr Honeycutt. 29 00:04:47.580 --> 00:04:57.060Debora Browning: At this time I'd like to introduce Jonna Polk EPA region six director, office of communities tribes and environmental assessment for general comments. 30 00:04:58.470 --> 00:05:10.620

JPOLK03: Thank you Deborah. Good evening everyone. As Deborah said I'm Jonna Polk and I serve as the director for region six EPA's office of communities tribes and environmental assessment. 31 00:05:11.130 --> 00:05:23.370 JPOLK03: I want to thank you for your time and your participation, this evening, as we share information concerning ethylene oxide emissions and provide an opportunity for you to ask questions. 32 00:05:24.060 --> 00:05:31.800 JPOLK03: We had hoped to meet with Community members in person, but continue to be protective of everyone during this pandemic. 33 00:05:32.130 --> 00:05:40.980 JPOLK03: So we are holding meetings virtually. I hope that you and your families are safe and we look forward to the time when we can safely gather again. 34 00:05:41.790 --> 00:05:52.830 JPOLK03: My special thank you this evening to a group of Community stakeholders from Texas and Louisiana who expressed their ethylene oxide concerns to EPA administrator. 35 00:05:53.310 --> 00:06:03.570 JPOLK03: This past spring EPA invited this group of stakeholders to work with EPA to improve outreach to communities concerning ethylene oxide, 36 00:06:04.290 --> 00:06:13.980 JPOLK03: Including recommendations on how to remove language barriers, provide meeting notices, and improve communication materials. 37 00:06:14.310 --> 00:06:21.480 JPOLK03: With the Community stakeholders, we have a common goal of providing you the best information in the best manner. 38 00:06:22.200 --> 00:06:33.450 JPOLK03: Again, thank you for your time and your participation, this evening. I would like to introduce your very strong Community advocate in our office Gloria Vaughn. 39 00:06:33.810 --> 00:06:45.660 JPOLK03: She is the associate director for environmental justice, who I'm sure many of you may already know, for her tireless efforts in getting

information to communities - Gloria.

40 00:06:56.400 --> 00:06:57.180 Gloria Vaughn: Thank you Deborah. 41 00:06:59.490 --> 00:07:11.910 Gloria Vaughn: Good evening as Jonna said I'm Gloria Vaughn, associate director for environmental justice for the office of Community tribes in environmental assessment here at the office in region six. 42 00:07:12.690 --> 00:07:19.800 Gloria Vaughn: I have been fortunate to meet and talk with some of you who are attending this Community meeting. For those who I have not met, 43 00:07:20.280 --> 00:07:36.780 Gloria Vaughn: My name may be familiar to you because I'm the person who sent you notices of grant opportunities, training opportunity, meeting invitations, opportunity to comment on related projects, and have your contact with issues that you want 44 00:07:37.800 --> 00:07:38.310 Gloria Vaughn: attention. 45 00:07:39.360 --> 00:07:47.220 Gloria Vaughn: We appreciate your time and the sacrifices that you need to attend this meeting. Please reach out to me suggestions for making these meetings. 46 00:07:48.600 --> 00:07:51.480 Gloria Vaughn: Our please make information I contact information. 47 00:07:55.710 --> 00:08:03.960 Gloria Vaughn: You can also reach me by 214-665-7535; your feedback is very important. 48 00:08:04.980 --> 00:08:09.990 Gloria Vaughn: Thank you for attending tonight's meeting and I now hand back to Deborah Browning. 49 00:08:16.080 --> 00:08:17.730 Debora Browning: He [Thank you] Jonna and Gloria. 50 00:08:18.870 --> 00:08:27.390 Debora Browning: Now I'd like to introduce David Garcia EPA region six Director, air and radiation division for opening comments.

## 51 00:08:35.100 --> 00:08:46.920 dgarcia: Thank you, excuse me. Thank you for joining us. Once again as Debora stated, my name is David Garcia. I'm the director for the Air and Radiation division for the US EPA agency, 52 00:08:47.610 --> 00:08:56.730 dgarcia: region six in Dallas Texas, the EPA is presenting this Community meeting on potential risk associated with emissions of ethylene oxide 53 00:08:57.090 --> 00:09:09.360 dgarcia: From the Eastman chemical Texas operation facility located in Longview, Texas. we will provide information on the current estimated risk from emissions of ethylene oxide from this facility, 54 00:09:09.870 --> 00:09:19.350 dgarcia: What actions Eastman chemical has completed since 2014 until 2020, and what EPA is planning to do to regulate this hair toxics. 55 00:09:20.760 --> 00:09:30.420dgarcia: We know that ethylene oxide is a significant building block for many useful everyday consumer products and is used as a sterilizer for medical equipment. 56 00:09:30.930 --> 00:09:43.500 dgarcia: During our periodic review of risks from air toxic chemicals, EPA determined that ethylene oxide presents a greater potential risk for getting cancer through the inhalation, 57 00:09:44.010 --> 00:10:01.290 dgarcia: or breathing route, of exposure. However, across the nation, the total emissions of air toxics pollutants are declining and air quality monitoring data shows that concentrations of individual air toxic pollutants in the air are trending downward. 58 00:10:03.180 --> 00:10:21.630 dgarcia: Despite these trends, some local areas are facing challenges from ethylene oxide emissions in 2014. And based on the latest national air toxics assessment, ethylene oxide significantly contributed to potentially elevated cancer risk 59 00:10:22.110 --> 00:10:30.330 dgarcia: In less than 1% of the census tracks across the United States. One of the census tracts is located in Longview Texas.

60 00:10:31.110 --> 00:10:36.510 dgarcia: Community outreach on ethylene oxide is a critical issue for EPA administrator Michael Regan. 61 00:10:37.140 --> 00:10:48.000 dgarcia: We will be addressing your questions, after the presentation by EPA and by Eastman chemical as well. We appreciate you taking the time to join us today. 62 00:10:48.750 --> 00:11:01.770 dgarcia: With that said, allow me to introduce Ms. Frances Verhalen, chief of the region's air monitoring section, she will provide more details on potential risk from ethylene oxide in Longview. 63 00:11:09.690 --> 00:11:10.440 Fran Verhalen: Good evening. 64 00:11:12.960 --> 00:11:18.810 Fran Verhalen: My name is Frances Verhalen and I'm a supervisor for the US Environmental Protection Agency 65 00:11:18.870 --> 00:11:19.860 In the Dallas Texas. 66 00:11:24.480 --> 00:11:32.490 Fran Verhalen: Tonight I will be talking about a review of ethylene oxide, including its importance and uses. 67 00:11:36.240 --> 00:11:36.600 Fran Verhalen: Maybe. 68 00:11:40.140 --> 00:11:43.230 Fran Verhalen: If my computer will work, I'm going to advance the screen. 69 00:11:49.260 --> 00:12:05.340 Fran Verhalen: Okay, so tonight, I will be talking about a review of ethylene oxide, including its importance and uses; the EPA estimated health risk from breathing ethylene oxide near the Eastman chemical company in Longview, Texas; 70 00:12:06.390 --> 00:12:23.730Fran Verhalen: What Eastman chemical company has done to provide updated and more accurate information on ethylene oxide emissions; and what

conclusions EPA has made after reviewing the updated information at the Eastman chemical company provided by  $TC{E]Q}$  and the company. 71 00:12:25.020 --> 00:12:31.440 Fran Verhalen: Tonight's discussion is a specific discussion about ethylene oxide emissions from this facility. 72 00:12:32.940 --> 00:12:50.250 Fran Verhalen: I'm focused on providing you information on ethylene oxide uses, the health effects from breathing ethylene oxide - both short term and long term risks, information on what the facility has done to update its information on emissions of ethylene oxide, 73 00:12:51.330 --> 00:13:03.870 Fran Verhalen: EPA conclusions after reviewing updated technical information and the risk model for this facility, and more accurate information provided by the company and TCEQ. 74 00:13:12.300 --> 00:13:20.250 Fran Verhalen: Ethylene oxide exists at room temperature as a colorless gas. It is flammable meaning, it can burn. 75 00:13:21.390 --> 00:13:31.890 Fran Verhalen: It is a chemical component in making other chemicals and is a component for common household products like detergents, plastic bottles, or carpeting. 76 00:13:33.690 --> 00:13:49.620 Fran Verhalen: It is also sterilizing agent for materials that cannot be heated or gotten wet. For example, ethylene oxide sterilizes the respiratory tubing used in hospitals and the masks and gowns used by doctors and nurses. 77 00:13:54.840 --> 00:14:03.930 Fran Verhalen: In recent years, EPA has learned more about the health risks from breathing air that contains ethylene oxide over a lifetime. 78 00:14:04.530 --> 00:14:21.090 Fran Verhalen: But there is a lot about ethylene oxide, that we still do not know. One of the questions we here at EPA are examining is whether ethylene oxide is in the air broadly across the United States and if it is at what levels. 79 00:14:22.350 --> 00:14:26.370 Fran Verhalen: We began examining this question after monitoring studies

80 00:14:27.450 --> 00:14:37.440 Fran Verhalen: In the air near industrial facilities in 2018 and 2019 found ethylene oxide at the monitors downwind of the facility. 81 00:14:38.640 --> 00:14:58.500 Fran Verhalen: This was to be expected, because wind will carry the ethylene oxide from facilities toward the monitors. But the studies also detected ethylene oxide at lower levels at monitors that were upwind of the facility, indicating the possibility that background ethylene oxide exists. 82 00:15:00.240 --> 00:15:11.460 Fran Verhalen: EPA has found concentrations of ethylene oxide in the outdoor air that are not clearly linked to a particular facility, such as a chemical plant or commercial sterilizer. 83 00:15:12.630 --> 00:15:17.670 Fran Verhalen: We do not yet know from where the ethylene oxide is coming. 84 00:15:18.870 --> 00:15:32.280 Fran Verhalen: The scientists and engineers at EPA continue to study and research multiple things that can contribute to ethylene oxide concentrations to better understand with ethylene oxide is coming from. 85 00:15:34.680 --> 00:15:45.090 Fran Verhalen: EPA has sampled the air in both urban and rural cities across the nation to monitor the concentrations of air toxics including ethylene oxide. 86 00:15:46.590 --> 00:16:02.400 Fran Verhalen: We now have found ethylene oxide at different locations across the nation with averages, ranging from approximately 0.2 to 0.4 micrograms per cubic meter. 87 00:16:08.940 --> 00:16:16.890 Fran Verhalen: I'm here tonight to tell you about potential health risks associated with air emissions of ethylene oxide from the Eastman chemical company 88 00:16:17.460 --> 00:16:31.320 Fran Verhalen: In Longview. I use the term potential cancer risk because each of us is unique in our reaction to cancer-causing agents and we may not get cancer from the same exposure as our neighbor.

89 00:16:35.430 --> 00:16:45.990 Fran Verhalen: When we the scientists at EPA discuss health risks, we focus on both short term risk and long term or lifetime risk. 90 00:16:47.430 --> 00:16:55.920 Fran Verhalen: Tonight I'm going to focus on the risks from breathing air toxics; you may hear this called inhalation risk. 91 00:16:58.710 --> 00:17:20.070 Fran Verhalen: Short term risks are those potential risks that impact quickly. You may know this as acute risks. For ethylene oxide, we normally associate this risk with workers who come into contact with and in this specific case breathe in high concentrations of ethylene oxide. 92 00:17:21.780 --> 00:17:30.870 Fran Verhalen: Short term inhalation exposure of workers to high levels of ethylene oxide has resulted in serious physical effects. 93 00:17:31.890 --> 00:17:41.280 Fran Verhalen: For you, living in the Community near the Eastman chemical company, this situation or type of risk is not likely or probable. 94 00:17:44.520 --> 00:17:57.000 Fran Verhalen: Long term risks are potential risks that may develop over years of exposure, such as breathing in lower concentrations of ethylene oxide over longer periods of time. 95 00:17:58.020 --> 00:18:00.660 Fran Verhalen: You may know this as chronic risk. 96 00:18:02.040 --> 00:18:21.720 Fran Verhalen: Long term effects from breathing high concentrations of ethylene oxide for multiple years can - but do not always - include cancer, irritation of the eyes skin and respiratory passages, and effects to the nervous system, such as headaches or memory loss. 97 00:18:25.260 --> 00:18:53.130 Fran Verhalen: We at EPA have determined that a long term, that is a lifetime or in our modeling about 70 years exposure, to ethylene oxide increases the estimated risk of possibly developing certain cancers. These cancers include lymphoma, myeloma, and potentially breast cancer. 98 00:19:00.060 --> 00:19:21.120

Fran Verhalen: First, let me explain what the potential increased cancer risk of what one in 1 million means. For every 1 million people that are exposed to the estimated levels of air in a specific area, one of these people may develop cancer over their lifetime and this risk 99 00:19:22.170 --> 00:19:26.400 Fran Verhalen: is that in addition to what people may develop. 100 00:19:27.630 --> 00:19:40.140 Fran Verhalen: When, pardon me, this risk is in addition to the risk that people may get cancer, without the breathing ethylene oxide. 101 00:19:43.110 --> 00:19:57.600 Fran Verhalen: Using the 2014 emission inventory information in the national air toxic assessment, EPA estimated that the potential risk in increased cancer risk in the Longview area from ethylene oxide, to be 102 00:19:58.470 --> 00:20:09.390 Fran Verhalen: 1300 cases in 1 million, and EPA determined that the ethylene oxide emissions were from the Eastman chemical company facility. 103 00:20:10.800 --> 00:20:25.920 Fran Verhalen: We at the EPA consider excess cancer risks that are estimated to be above 100 in 1 million as not sufficiently protective of human health and in need of further evaluation to address this concern. 104 00:20:27.390 --> 00:20:30.390 Fran Verhalen: Recently, using Eastman's 105 00:20:31.710 --> 00:20:42.510 Fran Verhalen: emission inventory information, EPA found that the potential risk in the increased cancer, to be 300 in 1 million. 106 00:20:44.850 --> 00:20:51.060 Fran Verhalen: The slide here shows the emissions for ethylene oxide for 2014 and 107 00:20:52.740 --> 00:21:16.140 Fran Verhalen: 2018 and the associated risk estimates. As you can see, there is about a 75% percent reduction of emission of ethylene oxide at Eastman since 2014 and an associated decrease in potential cancer risk again approximately 75% growth. 108 00:21:19.260 --> 00:21:27.990

Fran Verhalen: EPA uses the actual annual emissions for a specific year to develop the estimated lifetime cancer risk. 109 00:21:29.040 --> 00:21:39.900 Fran Verhalen: Because the amount of annual emissions changes, based on a facility's use of ethylene oxide, the associated risk continues to change. 110 00:21:41.010 --> 00:21:45.780 Fran Verhalen: For the Eastman chemical facility, the amount of ethylene oxide emitted in 2020 111 00:21:47.460 --> 00:21:55.980 Fran Verhalen: is expected to be about half of the amount emitted in 2018. 112 00:22:00.150 --> 00:22:04.110 Fran Verhalen: In developing the risk number for breathing ethylene oxide, 113 00:22:05.460 --> 00:22:19.590 Fran Verhalen: EPA chooses to be protective and conservative. We based the increased estimated risk of possibly contracting cancer on someone breathing air with ethylene oxide in it 114 00:22:20.070 --> 00:22:34.470 Fran Verhalen: at the same concentration every day for 24 hours a day for 70 years. It does not mean that it will take 70 years to develop cancer; it could be less or more time. 115 00:22:36.990 --> 00:22:46.830 Fran Verhalen: We do not expect a one time or short term exposure of low amounts of ethylene oxide to cause immediate harm to a person's health. 116 00:22:48.780 --> 00:23:02.490 Fran Verhalen: We at EPA found that a long term exposure, that is a lifetime or about 70 years, exposure to ethylene oxide increases the potential of certain white blood cell cancers. 117 00:23:03.930 --> 00:23:12.030 Fran Verhalen: Some studies also conclude that long term exposure to ethylene oxide may increase the risk of breast cancer. 118 00:23:16.200 --> 00:23:27.780

Fran Verhalen: In determining the risk, the EPA used the human exposure model to perform the risk assessments for sources emitting air toxic to the air. 119 00:23:28.920 --> 00:23:51.240 Fran Verhalen: This model only addresses the inhalation exposure. It is designed to predict estimated risks associated with chemicals emitted into the air, that is air toxics released into the air that move beyond a facility's property boundary and remain in the vicinity of the facility. 120 00:23:52.920 --> 00:24:04.020 Fran Verhalen: We used the emissions and facility information from the Eastman chemical company and ran the model to predict the estimated risk from this facility. 121 00:24:06.570 --> 00:24:26.940 Fran Verhalen: The results of the human exposure model provides estimates of potential cancer risk and non-cancer hazards for the chemicals evaluated in the model. The actual health of an individual and one's likelihood of developing cancer may be affected by other factors. 122 00:24:29.070 --> 00:24:35.490 Fran Verhalen: Examples of other factors include how long a person is exposed to any air toxic, 123 00:24:36.660 --> 00:24:43.500 Fran Verhalen: what their regular routines normally are, and how long a person has lived in a particular location. 12400:24:45.180 --> 00:24:53.880 Fran Verhalen: More information about the modeling can be found @www.epa.gov. 125 00:24:54.960 --> 00:25:19.800 Fran Verhalen: Forward slash F E R A forward slash risk hyphen assessment hyphen and hyphen modeling hyphen human hyphen exposure hyphen 126 00:25:20.910 --> 00:25:25.920 Fran Verhalen: model hyphen H E M. 127 00:25:33.690 --> 00:25:54.900 Fran Verhalen: The Eastman chemical company Texas operations facility is located southeast of the city of Longview Texas. It is a chemical manufacturing site. The facility produces products used in automobile

interiors, food preservatives, cosmetics, toys, paints, and personal care items. 128 00:25:58.140 --> 00:26:09.240 Fran Verhalen: As EPA began updating information from 2014 to 2020 for our technical assessment, we initiated discussions with Eastman chemical. 129 00:26:10.890 --> 00:26:22.500 Fran Verhalen: In April EPA sent a letter to Eastman chemical asking for their updates on ethylene oxide controls from 2014 through 2020. 130 00:26:24.810 --> 00:26:38.910 Fran Verhalen: EPA and TC[E]O held a conference call with Eastman and discussed facility efforts to reduce reported ethylene oxide emissions and obtained additional technical information. 131 00:26:46.710 --> 00:26:55.320 Fran Verhalen: The Longview facility manufactures ethylene oxide at two plants, the ethylene oxide plant one and plant two. 132 00:26:57.240 --> 00:27:03.660 Fran Verhalen: The refined ethylene oxide product is consumed in process units on sites to produce other chemicals. 133 00:27:04.920 --> 00:27:15.630 Fran Verhalen: Changes in ethylene oxide emissions estimates are a result of corrections to the engineering estimates of emissions from three process areas. 134 00:27:16.860 --> 00:27:17.550 Fran Verhalen: First, 135 00:27:18.660 --> 00:27:31.590 Fran Verhalen: Eastman chemical recalculated its emission data by using the actual measured data, instead of estimated results for their process. Then second, 136 00:27:32.550 --> 00:27:44.460 Fran Verhalen: it changed the method to measure ethylene oxide concentrations in its wastewater to use a more precise number to measure the amount of organic chemicals in that wastewater stream. 137 00:27:45.630 --> 00:27:54.330

Fran Verhalen: And third, Eastman determined a more accurate amount of ethylene oxide evaporating out of the wastewater stream. 138 00:27:57.690 --> 00:28:03.390 Fran Verhalen: Eastman chemical also refined its initial estimates from its equipment and 139 00:28:04.740 --> 00:28:06.120 Fran Verhalen: piping leaks. 140 00:28:07.140 --> 00:28:23.250 Fran Verhalen: They modified the leak detection program software to use EPA correlation equations, current year readings, and the most recent historical reading to develop a full year initial estimate. 141 00:28:28.950 --> 00:28:29.970 Fran Verhalen: On this chart, 142 00:28:31.080 --> 00:28:45.780 Fran Verhalen: from 2014 to 2020, through emission reductions and reevaluation of the actual emission levels, reported ethylene oxide annual emissions were significantly reduced. 143 00:28:47.910 --> 00:28:54.030 Fran Verhalen: Reported 2020 emissions decreased about 75% from the 144 00:28:55.080 --> 00:28:55.740 Fran Verhalen: 2014 levels. 145 00:28:57.420 --> 00:29:14.100 Fran Verhalen: EPA will continue to work with Eastman to monitor the annual emissions on an annual basis. You can check on emission inventories and toxic risk inventories from Eastman and other facilities of interest. 146 00:29:21.420 --> 00:29:26.850 Fran Verhalen: Eastman chemical plans to add a scrubber from the Eastman solvent 147 00:29:27.870 --> 00:29:45.330 Fran Verhalen: plant one distillation column vent, similar to one the facility operates at its plant two unit. A scrubber is an air pollution control device that removes gases, such as ethylene oxide from the exhaust air.

148 00:29:47.700 --> 00:30:02.010 Fran Verhalen: Based on testing of the scrubber at the existing plant, Eastman expects to remove 95% of the ethylene oxide emissions, using the new scrubber at their solvent 149 00:30:03.090 --> 00:30:04.920 Fran Verhalen: plant one distillation vent. 150 00:30:06.570 --> 00:30:14.670 Fran Verhalen: Projected future ethylene oxide annual emissions are about one third of the 2018 emissions evaluated. 151 00:30:15.750 --> 00:30:27.090 Fran Verhalen: And over 91% lower than the 2014 ethylene oxide emissions that were evaluated in the national air toxic assessment. 152 00:30:30.060 --> 00:30:53.880 Fran Verhalen: Over the next three years, EPA plans to review pending and proposed regulations impacting ethylene oxide emissions. Should and when changes to these regulations occur, Eastman chemical may be required to adjust their operations to control other ethylene oxide emissions. 153 00:30:58.470 --> 00:31:10.740 Fran Verhalen: The Eastman chemical company has worked to reduce ethylene oxide emissions from their facility. The facility also has proposed plans to further reduce ethylene oxide emissions. 154 00:31:11.580 --> 00:31:24.660 Fran Verhalen: And this effort over the past six years has resulted in a reduced estimated cancer risk, based on the emissions, of 300 cases in 1 million. 155 00:31:25.770 --> 00:31:34.470 Fran Verhalen: Yet, based on the 2018 emissions, the facility still has an estimated increased cancer risk above EPA's guideline. 156 00:31:36.390 --> 00:31:43.830 Fran Verhalen: EPA, TC[E]Q and the facility will continue discussing ways to address emissions of ethylene oxide. 157 00:31:45.330 --> 00:32:01.140

Fran Verhalen: I do remind you that EPA models estimate risk assuming a continuous 24-hour [per] day inhalation exposure to ethylene oxide for a lifetime of 70 years. 158 00:32:03.840 --> 00:32:11.670 Fran Verhalen: EPA is continuing to review and revise our regulations that affect ethylene oxide emissions. 159 00:32:18.030 --> 00:32:22.980 Fran Verhalen: We have provided a web link, for your convenience to look up additional information. 160 00:32:24.210 --> 00:32:38.820 Fran Verhalen: The EPA ethylene oxide webpage is found at www dot EPA dot gov forward slash ethylene dash oxide. 161 00:32:42.810 --> 00:33:11.310 Fran Verhalen: EPA also has additional information with the ethylene oxide webinar presented in May of this year. It can be found on the website www.epa.gov forward slash tx forward slash air dash issues dash Texas. 162 00:33:15.000 --> 00:33:38.130 Fran Verhalen: EPA also has provided additional resources for information about air toxics and regulations for air toxics. Some of these topics include the list of the air toxic pollutants and overview of our risk and technology program and the plain English guide to the Clean Air act. 163 00:33:39.540 --> 00:33:42.120 Fran Verhalen: Thank you. Back to you Debora. 164 00:33:47.730 --> 00:33:48.720 Debora Browning: Thank you Fran. 165 00:33:50.430 --> 00:34:01.890 Debora Browning: For your ethylene oxide presentation, EPA would like to introduce our next presenter, Andrew Coggins with the Eastman chemical site management. 166 00:34:03.030 --> 00:34:18.690 Debora Browning: He will we will look We look forward to hearing more from Eastman chemical on their activity, since 2014 to reduce or control ethylene oxide emissions from their facility, their ongoing efforts in any future plans they can share with us.

167 00:34:24.690 --> 00:34:25.470 Thank you, Deborah. 168 00:34:27.030 --> 00:34:43.260 I'm Andrew Coggins with Eastman chemical company. I'm the Vice President of Texas operations and the on-site leader for our manufacturing facility here in Longview Texas. I'm going to share a brief overview of Eastman before getting into more details about our site here in Longview. 169 00:34:46.350 --> 00:35:02.760 So Eastman is a fortune 500 specialty materials company. We're a global manufacturer and marketer of advanced materials and especially additives. We have a global team of more than 14,000 employees and we serve customers in over 100 countries. 170 00:35:15.300 --> 00:35:20.940 Hello technical difficulty here alright, so a little bit about our site here in Longview. 171 00:35:22.050 --> 00:35:33.390 We are the second largest site that Eastman has, an operation next to our headquarters located in Kingsport Tennessee. Our site has been in operation since 1952. 17200:35:34.380 --> 00:35:47.910 We're on about 6000 acres: 600 acres of that actually have production equipment, whereas 5400 acres surround our manufacturing facility and it's woodlands and bodies of water. 173 00:35:48.570 --> 00:36:00.210 They're all owned by Eastman. We have over 1400 Eastman employees at our facility here in Longview and we have over 2500 Eastman employees that are retired in the State of Texas. 17400:36:00.720 --> 00:36:14.730 Here at our site we produce more than 40 materials. They go into various applications such as automobile interiors, food preservatives, cosmetics toys, paint, and personal care items. 175 00:36:17.340 --> 00:36:24.960 The Longview community is very important to us. We live and work here; we raise our families here. 176 00:36:25.440 --> 00:36:31.740

And we're proud to invest in the Community, because this community is what gives so much back to our employees. 17700:36:32.400 --> 00:36:42.300 On the screen here, you can see some examples of how we engage with the Community, and we support the region where we live. To the left, you can see 178 00:36:43.110 --> 00:37:05.280 where Eastman provided a check to one of the local hospital chains, for more than \$145,000 that goes to the vaccination clinic here in for COVID 19 here in Longview. In total Eastman's provided \$330,000 over the past two years in COVID 19 relief funding to the area. 179 00:37:07.350 --> 00:37:21.300 In the middle, you can see some pictures of Eastman actively partnering with over 40 regional schools through 25 different partnerships and programs to advance the education opportunities in the region. 180 00:37:22.050 --> 00:37:29.730 We are also engaged with five associate degree programs to build more qualified and diverse workforce for tomorrow. 181 00:37:32.070 --> 00:37:42.630 On the right side of the slide, you can see a picture of parts of our onsite nature Center that maintains a wildlife habitat counselor conservation certification. 182 00:37:43.230 --> 00:37:53.370 We This includes hosting forest awareness tours for local and surrounding schools and award winning project learning tree workshops for K through eighth grade educators. 183 00:37:54.000 --> 00:38:01.140 In the middle, you can see, one of these students, looking at the honeybees that we have here on our site in this wildlife habitat Center. 184 00:38:03.330 --> 00:38:15.270As you can see Eastman is very proud to call Longview home. One of the things that I'm most proud of about our employees is pictured in the one on the bottom left corner. 185 00:38:15.750 --> 00:38:37.140And this is a picture of our employees engaged in the United Way campaign. Our employees last year pledges more than \$450,000 to regional

United Way organizations for this year and every year. This is a very significant activity that our employees engage in to support our Community. 186 00:38:39.420 --> 00:38:44.520 Before moving off of this slide I thought it would be appropriate to also share a little bit about myself. 187 00:38:45.000 --> 00:38:53.160 Like most of our employees, we are also part of the local community. My wife and I have been raising our three kids here in Longview. 188 00:38:53.940 --> 00:39:04.500 My kids have had a wonderful experience in the public school system here and my wife enjoys her job as a first grade public school teacher. In short, Longview is our home. 189 00:39:06.150 --> 00:39:12.120 So when you think about safety or when you think about what it means to have safe operations that are Eastman facility, 190 00:39:12.750 --> 00:39:22.620 we know the decisions that we make not only impact our employees, those decisions have the potential to impact the Community and our families to. 191 00:39:23.250 --> 00:39:38.610 We are critical to this region, both from an employment standpoint, and we take that very seriously and definitely consider safety and the health of the area and the environmental stewardship as critical components to our operations. 192 00:39:42.210 --> 00:39:55.680 We have a very strong safety track record, we are certified responsible care management system. We are an Energy Star site and an Energy Star partner of the year award recipient for multiple years. 193 00:39:57.210 --> 00:40:05.010 We have sustained excellence and caring for Texas award from the Texas chemical Council and we're an OSHA VPP star site. 194 00:40:06.660 --> 00:40:15.960 We have had 60 years of on-site industrial hygiene practices, including industrial hygiene surveys every three years to help protect our employees

195 00:40:16.350 --> 00:40:24.990 and identify any issues that we might have at the site. We have a full time medical team on site that helps us administer all of these health programs. 196 00:40:29.250 --> 00:40:43.080 So I'm going to share a brief video about ethylene oxide entitled ethylene oxide and a central chemistry. And hopefully for those that aren't familiar with the chemical, this will help you gain a better understanding. 197 00:40:47.580 --> 00:40:48.720 Look around your House. 198 00:40:49.830 --> 00:40:50.580 In the bathroom. 199 00:40:50.790 --> 00:41:00.810 You might find a few products like these in the bedroom. You probably sleep on these, have several of these in your closet, and use this to keep them clean. 200 00:41:02.220 --> 00:41:05.040 In the garage, you might use these products in your car. 201 00:41:06.120 --> 00:41:12.090 Whether you are using these products in your morning or evening or we can reduce, they all have one thing in common: 202 00:41:12.780 --> 00:41:19.020 they've been manufactured with the help of a versatile and essential chemical building block called ethylene oxide. 203 00:41:19.620 --> 00:41:26.040 Besides consumer goods, ethylene oxide is used to manufacture many products used in other applications too. 204 00:41:26.700 --> 00:41:35.580 In health care, ethylene oxide is used in the production of life-saving medical devices, including personal protective equipment used by medical professionals. 205 00:41:36.180 --> 00:41:43.290

In fact more than 50% of medical devices are sterilized using ethylene oxide, to better protect you and me. 206 00:41:44.220 --> 00:41:51.000 Manufacturing facilities using and producing ethylene oxide are highly regulated by state and federal agencies. 207 00:41:51.480 --> 00:42:03.840 The EPA standards for ethylene oxide production in use require emission reducing and monitoring devices on site, testing site specific operating parameters, and regular reporting and record keeping. 208 00:42:04.620 --> 00:42:10.860 Facilities that work with ethylene oxide use cutting-edge technologies to meet and exceed EPA standards. 209 00:42:11.400 --> 00:42:17.040With continued improvement, we've seen significant reductions in the missions over the last 20 years. 210 00:42:18.030 --> 00:42:22.560 OSHA set specific standards and requirements for people working with ethylene oxide. 211 00:42:23.220 --> 00:42:30.720 Extensive training of industry personnel on the handling, use, and production of ethylene oxide occurs on a continual basis. 212 00:42:31.260 --> 00:42:36.810 Production safeguards and mechanisms are in place in case of an incident to minimize released and exposure. 213 00:42:37.380 --> 00:42:45.780Industry employees also assist in training first responders and personnel from other facilities on emergency responses involving ethylene oxide. 214 00:42:46.650 --> 00:42:55.320Companies that produce and use ethylene oxide are committed to the health and safety of their employees our environment and our local communities. 215 00:42:55.770 --> 00:43:05.400 More work continues to be done using innovation and technology to minimize emissions, improve best practices, and create essential products people use every day.

216 00:43:15.060 --> 00:43:31.680 So our Longview site does make and use ethylene oxide as the video just discussed. It is using the manufacturer of everyday products like cleaners, clothing, antifreeze, brake fluid, and it's a critical sterilizing agent in the medical industry. 21700:43:32.730 --> 00:43:41.880 We comply with both the TCEQ's and the EPA current EO emission standards. Our compliance assurance programs continue to show 218 00:43:43.140 --> 00:43:59.940 that current EO emissions at our Longview site do not pose an elevated risk to our team or the surrounding community. When EPA incorporates its new regulatory risk value, Eastman will comply with all affected rules and requirements. 219 00:44:02.520 --> 00:44:14.730 After the EPA revised their EO cancer risk value, we hired a highly regarded environmental firm - Ramboll - to run independent analysis of our EO emissions and their predicted risk. 220 00:44:15.480 --> 00:44:24.150Dr Shari Libicki led the team that perform the data analysis of our EO emissions. Dr Libicki is a principal at Ramboll. 221 00:44:24.720 --> 00:44:34.470 She received her undergraduate chemical engineering degree from the University of Michigan. She received her master's and PhD in chemical engineering from Stanford university. 222 00:44:35.250 --> 00:44:50.400 She's currently an adjunct Professor for Stanford university and she has more than 30 years of experience, reducing chemical emissions, understanding where chemicals go when they are released into the air, and helping understand the effects on human health and the environment. 223 00:44:52.140 --> 00:44:52.920It's all yours. 224 00:44:54.270 --> 00:45:03.420 Shari Beth Libicki: Thanks, I appreciate the introduction, I appreciate the ability to have to be here to put a little bit more context into the risk assessment that the EPA has done; next slide.

225 00:45:06.120 --> 00:45:12.690 Shari Beth Libicki: So, as I mentioned, and I think you know very appropriately because EPA is here to protect public health. 226 00:45:13.200 --> 00:45:28.560 Shari Beth Libicki: This is a conservative estimation of risks. So, as I mentioned, it's a seventy year exposure at a single location 24 hours a day, seven days a week. EPA also reports the risk of the highest census block, which means that everybody else's risk is lower. 227 00:45:29.610 --> 00:45:38.520 Shari Beth Libicki: EPA risk factors also are much higher than TCEQ's risk factor, and when TCEQ risk factors are used for the ethylene oxide emissions associated with 228 00:45:38.970 --> 00:45:45.360 Shari Beth Libicki: Eastman's Longview site, the risks are much lower less than one in a million which most people consider to be de minimis. 229 00:45:46.170 --> 00:45:57.120 Shari Beth Libicki: EPA risk is highly conservative and doesn't really reflect people's everyday life, but they do, as it's supposed to be a conservative estimate to protect public health. 230 00:45:58.080 --> 00:46:07.410 Shari Beth Libicki: EPA risk estimates talk about in a million. And as EPA mentioned , if there's not a million people, then the risk estimates are lower. 231 00:46:07.860 --> 00:46:21.720 Shari Beth Libicki: And when you put the population into the context with the risks even EPA conservative assessment indicates that there's not even a single excess cancer risk per year; next slide please. 232 00:46:23.850 --> 00:46:30.870 Shari Beth Libicki: And there are risks from breathing everywhere. Common airborne pollutants include benzene from gasoline like when you're filling your car; 223 00:46:31.590 --> 00:46:39.600 Shari Beth Libicki: formaldehyde from cigarettes; or anything else that burns. The range of risks from breathing air in the United States has been estimated through a variety of studies.

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00:46:40.230 --> 00:46:49.170 Shari Beth Libicki: To be similar to are much more [VF1]than the risks from breathing ethylene oxide in the air resulting from Eastman's Longview operations. 235 00:46:49.830 --> 00:46:56.580 Shari Beth Libicki: The body also produces ethylene oxide, naturally, and that naturally produces ethylene oxide, has also been the subject of studies. 236 00:46:57.180 --> 00:47:08.880 Shari Beth Libicki: Studies have indicated that the definitely an ethylene oxide produced in a human body, results in more, and in some cases, much more ethylene oxide than would be there as a result of Eastman 237 00:47:09.450 --> 00:47:21.450 Shari Beth Libicki: Longview operations. And, finally, I think you heard earlier EPA has measured background concentrations of ethylene oxide and those concentrations are also 238 00:47:21.960 --> 00:47:39.750 Shari Beth Libicki: as high in some cases much higher than the estimated concentrations that result from Eastman's Longview operations. So, in summary, I hope this just gives some context to the risks that are being predicted by the EPA, in an attempt to be health protective of the Community around Longview. 239 00:47:44.940 --> 00:47:51.930So, Dr Libicki, we certainly appreciate you sharing your independent opinion, and we thank you for sharing your expertise. 240 00:47:52.680 --> 00:48:00.720 We also want to take the time to share our or to thank the EPA for allowing us to have some time to present here at this public forum. 241 00:48:01.350 --> 00:48:16.080 If there are any additional questions from anybody in the audience, please feel free to contact us at info@eastman.com. Again that's info at Eastman dot com and thank you all. Will turn it back over to you Debora. 242 00:48:21.690 --> 00:48:24.090 Debora Browning: Thank you, Andrew and thank you, Dr Libicki. 243 00:48:25.680 --> 00:48:36.330

Debora Browning: We are at the question and answer portion of our meeting. Your comments and questions are very important to us, and extra time has been included to hear from the Community. 244 00:48:39.150 --> 00:48:43.800 Debora Browning: As mentioned at the beginning of the meeting, you can post a question in the chat box using the button 245 00:48:45.750 --> 00:48:51.780 Debora Browning: at the bottom of your screen or in the chat box to the right of your screen. And we ask that you 246 00:48:52.680 --> 00:49:02.550 Debora Browning: limit, since we have limited time this evening, we ask that you limit your question to two to three minutes in order to address as many of your questions as possible. 247 00:49:03.120 --> 00:49:08.250 Debora Browning: As a reminder, this meeting is focused on hearing from the citizens in the Longview area 248 00:49:08.640 --> 00:49:19.920 Debora Browning: near the Eastman chemical facility. Any questions related to the industry permits, any enforcement or legal actions, or about other areas or facilities will not be addressed during this Community meeting. 249 00:49:20.460 --> 00:49:37.500 Debora Browning: You may send these questions or other ethylene oxide related questions and comments to the EPA region six email box at R six underscore ethylene oxide@epa.gov [R6\_ethyleneoxide@epa.gov]. This link will be also be posted in the chat box. 250 00:49:38.670 --> 00:49:47.250 Debora Browning: EPA will post the list of questions and answers on the EPA region six website listed on the slide and in the chat box shortly. 251 00:49:47.550 --> 00:49:54.840Debora Browning: These web links were included in the announcement and will be forwarded to the States afterwards for distribution. My colleague 252 00:49:55.410 --> 00:50:05.670 Debora Browning: Janetta Coates will assist me with the Q and A session. I will check with Janetta periodically for a hand raised check and see if our dial in participants have any questions.

253 00:50:06.300 --> 00:50:16.170 Debora Browning: For those dialing in on the phone, please mute your phone by pressing star six. There will be an opportunity for phone attendees to ask a question during the Q and A session. 254 00:50:16.590 --> 00:50:26.310Debora Browning: When recognized to speak, you will unmute your line by pressing star six; please identify yourself prior to asking your question. 255 00:50:39.480 --> 00:50:43.770 Debora Browning: I'm getting my chat box, the first question that I have. 256 00:50:50.760 --> 00:51:06.750 Debora Browning: The first question that I have is from Steve crying [VF2]and it's two questions, Fran. He wants to know where is the geographic area in Longview and then from slide 11 what is meant by near. 257 00:51:08.640 --> 00:51:11.160 Fran Verhalen: The second question was what is meant by 258 00:51:12.630 --> 00:51:13.260 Debora Browning: near. 259 00:51:13.800 --> 00:51:16.020 Fran Verhalen: near. Oh I'm okay. 260 00:51:18.210 --> 00:51:19.140 Fran Verhalen: The geographic 261 00:51:20.550 --> 00:51:27.720 Fran Verhalen: extent for ethylene oxide that is used in the model, the model uses 262 00:51:29.610 --> 00:51:35.970 Fran Verhalen: 50 kilometers or about 30 mile radius. When we're looking at that, 263 00:51:37.110 --> 00:51:43.860 Fran Verhalen: we're looking at a very large area to model. The risk

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00:51:45.180 --> 00:51:57.840 Fran Verhalen: is over that - it can be over that - entire area. However, when we work through the model we determine which census tracts 265 00:51:59.040 --> 00:52:14.460 Fran Verhalen: will have the highest concentration of risk or the highest risk based on concentration and those were closer into the area nearer to the boundary of 266 00:52:16.920 --> 00:52:18.000 Fran Verhalen: With Eastman. 267 00:52:19.410 --> 00:52:22.050 Fran Verhalen: And so near. 268 00:52:24.420 --> 00:52:37.380 Fran Verhalen: I will have to look up exactly which block, it was I don't remember I'm sorry, but it would not be at the further extent of the 30 mile radius. It's probably, 269 00:52:38.490 --> 00:52:42.810 Fran Verhalen: if I remember correctly, it would be within the one to one and a half mile radius. 270 00:52:51.780 --> 00:53:01.950 Debora Browning: Thank you, Fran. Our next question comes from Robert Quinn. He wants to know why is TCEQ risk numbers so much higher than EPA? 27100:53:03.570 --> 00:53:09.120 Fran Verhalen: Sure what a great question um when looking at risk. 272 00:53:11.760 --> 00:53:16.020 Fran Verhalen: TC[E]Q and EPA use slightly different models 273 00:53:17.430 --> 00:53:24.600 Fran Verhalen: to determine the risk, and that had a fairly significant effect also. 274 00:53:26.100 --> 00:53:29.220 Fran Verhalen: EPA included the 275 00:53:31.320 --> 00:53:48.480

Fran Verhalen: epidemiology numbers from breast cancer that TCEQ did not use. Breast cancer is a probable carcinogen associated with ethylene oxide and we felt we at EPA felt that there was sufficient evidence 276 00:53:49.710 --> 00:53:54.630 Fran Verhalen: that it should be included in the risk. TCEQ did not 277 00:53:56.010 --> 00:54:02.640 Fran Verhalen: include that, as it was it listed as probable and not carcinogenic. 278 00:54:05.700 --> 00:54:06.060 Fran Verhalen: Thank you. 279 00:54:06.390 --> 00:54:07.590 Michael Honeycutt: Fran This is Mike Honeycutt. 280 00:54:09.060 --> 00:54:10.350 Fran Verhalen: You certainly can. 281 00:54:10.440 --> 00:54:11.250 Fran Verhalen: come right on in. 282 00:54:11.580 --> 00:54:27.210 Michael Honeycutt: Actually, the Agency for Toxic substances and Disease Registry, the ATSDR, which is a subset of the CDC, in their draft ethylene oxide assessment, also did not find that ethylene oxide is associated with breast cancer. 283 00:54:28.800 --> 00:54:51.690 Michael Honeycutt: So it's not just us. The tcp [VF3]was also the ATSDR that I believe that. And your number, EPA's number came out in 2016 and our number came out last year in 2020, so we had the benefit of additional information analyses and data that the EPA did not have and 284 00:54:53.160 --> 00:54:58.080 Michael Honeycutt: and a lot of that breast cancer data has the analysis has come out since 2016. 285 00:55:00.420 --> 00:55:03.420 Fran Verhalen: Thank you, Dr Honeycutt, appreciate the additional information.

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00:55:08.190 --> 00:55:17.040 Debora Browning: Fran, I'd like to check with Janetta to see if we have any hand raises or any dial in participants that would like to ask a question. Janetta. 287 00:55:17.820 --> 00:55:26.730 Janetta Coats: Yes, thank you Deborah. In looking at the telephone numbers, I do not see any hand raised. Oh yeah there's one; there goes one. 288 00:55:28.380 --> 00:55:50.010 Janetta Coats: Let me see if I can click on the person's number to identify the number - is not showing the number so whomever have their hand raised, could you please press star six and unmute your phone, state your name and ask your question? Please there's only one hand raised that I can see. 289 00:55:55.320 --> 00:55:58.650 Tokesha Collins Wright: Hi, this is Tokesha Collins Wright. You can y'all hear me? 290 00:55:59.700 --> 00:56:00.330 Fran Verhalen: Yes, ma'am. 291 00:56:00.900 --> 00:56:15.510 Tokesha Collins Wright: Okay, um, so I actually have comments, not a question. Um. I just and good afternoon everybody. Good evening everybody. My name's Tokesha Collins Wright. I am the Vice President of Environmental Affairs for the Louisiana chemical association. 292 00:56:16.590 --> 00:56:25.680 Tokesha Collins Wright: LCA is a nonprofit Louisiana corporation composed of 66 Members with over 100 chemical manufacturing sites in Louisiana. 293 00:56:26.430 --> 00:56:33.960 Tokesha Collins Wright: I'll say Members are committed to excellence and safety, health and environmental performance and in being good environmental stewards. 294 00:56:34.350 --> 00:56:47.370 Tokesha Collins Wright: In our world, industry has learned to adapt to new circumstances. Since the late 1980s, emissions from current Louisiana manufacturers have decreased by 75%. 295 00:56:48.000 --> 00:56:55.170

Tokesha Collins Wright: And the industry has invested much effort and made great progress in its quest to lessen the amount of discharges from facilities. 296 00:56:55.500 --> 00:57:03.780 Tokesha Collins Wright: Major improvements and technology such as emission control devices, a methodology that allows plans to measure their releases in parts per trillion 297 00:57:04.230 --> 00:57:12.990 Tokesha Collins Wright: rather than the previous standard of parts per million, has made a big difference in the work to reduce chemical emissions. And so tonight's meeting 298 00:57:13.680 --> 00:57:26.490 Tokesha Collins Wright: that thank thankfully EPA has put on his focus specifically on ethylene oxide well with our ethylene oxide on the Agency has been examining emissions since 2014. 299 00:57:26.970 --> 00:57:36.360 Tokesha Collins Wright: And since that time, we see that ethylene oxide and industry emitters has steadily decreased their emissions, based on things like control technology 300 00:57:37.500 --> 00:57:52.800 Tokesha Collins Wright: and or reevaluation other actual machine levels. And we have every reason to believe that as new control technology is discovered and implemented, our emissions will be reduced even further. 301 00:57:53.820 --> 00:58:03.960 Tokesha Collins Wright: As noted by you earlier in the presentation, EPA modeling of estimating risks as, as we all have noted, is very conservative. 302 00:58:04.410 --> 00:58:13.050 Tokesha Collins Wright: And in addition to the factors that you laid out, it is being continuous 24 hour inhalation exposure for seventy years. 303 00:58:13.350 --> 00:58:24.240 Tokesha Collins Wright: We also can see the conservative emissions based upon the fact that the modern the monitoring conducted by EPA in 2018 and 2019 304 00:58:24.870 --> 00:58:44.880

Tokesha Collins Wright: shows background EO numbers that are several magnitude higher than the EPA IRIS values for EtO. And based on our understanding of the way, as we knock some of use down close to the background levels, pretty soon after leaving the EO facilities with no increased risk beyond that. 305 00:58:46.890 --> 00:58:54.600 Tokesha Collins Wright: Um, so just in closing, I want to say that industry has made and continues to make tremendous progress on reducing emissions. 306 00:58:54.900 --> 00:59:09.060 Tokesha Collins Wright: And we welcome this Community outreach and open dialogue with local community so that individual facilities can start letting everybody know what's happening inside their plants and what their plans are for the future, and I thank you very much for letting me speak. 307 00:59:11.430 --> 00:59:12.810 Janetta Coats: Thank you, Tokesha. 308 00:59:14.340 --> 00:59:26.610 Janetta Coats: Deborah, I do not see any additional hand raised and if I am overlooking any, will someone please let me know that? But I do not see any additional hands - great. 309 00:59:27.960 --> 00:59:31.530 Debora Browning: Thank you Janetta. I will check back if someone else raises their hand. 310 00:59:32.160 --> 00:59:32.610 Janetta Coats: Oh there's no. 311 00:59:33.060 --> 00:59:34.770 Debora Browning: Yeah there's one there - Suzanne. 312 00:59:35.010 --> 00:59:36.120 Janetta Coats: Yes, there's one okay. 313 00:59:38.850 --> 00:59:40.260 Janetta Coats: Suzanne yes. 314 00:59:40.290 --> 00:59:41.010 Suzanne: Can you hear me?

315 00:59:41.580 --> 00:59:43.350 Janetta Coats: Yes, we can hear you. Can you please 316 00:59:44.490 --> 00:59:45.540 Janetta Coats: state your name. 317 00:59:46.050 --> 00:59:47.880 Janetta Coats: Yes, of course, thank you. 318 00:59:48.300 --> 00:59:53.760 Suzanne: I am Suzanne Statton Brown. I'm the senior Vice President of the Longview chamber of commerce. 319 00:59:54.420 --> 00:59:59.550 Suzanne: Want to say thank you to the Environmental Protection Agency for this meeting of public comments pertaining 320 00:59:59.940 --> 01:00:10.320 Suzanne: to the recent efforts to update the predicted cancer risk value for ethylene oxide. In addition, we want to say thank you to the Texas Commission on Environmental Quality for co-hosting this event. 321 01:00:11.190 --> 01:00:23.040 Suzanne: The Chamber along the chamber of commerce is pleased to present comment on this risk value and its potential impact to Eastman chemical Texas operations, as well as other chemical operating facilities identified by the EPA. 322 01:00:23.940 --> 01:00:34.530 Suzanne: Our President and CEO Kelly Hall has served on Eastman's citizen advisory panel for six years and has had the privilege of learning more about the operations of this facility, 323 01:00:34.830 --> 01:00:42.690 Suzanne: it's adherence to safety and industrial hygiene under OSHA, its adherence to environmental protection under EPA and TCEQ, 324 01:00:42.990 --> 01:00:58.350 Suzanne: and overall performance enhancement and health and safety improvement of their employees. The Longview trade area in which they operate and the overall environment as a whole, Eastman chemical has

partnered with the Longview Chamber of Commerce for over 66 years.

325 01:00:59.370 --> 01:01:09.120 Suzanne: Eastman chemical company has a rich history of being responsible stewards of their resources striving to improve the health and vibrancy of their surrounding communities, 326 01:01:09.360 --> 01:01:15.390 Suzanne: supporting local philanthropic organizations and programs, with their time and resources. 327 01:01:16.200 --> 01:01:25.320 Suzanne: Eastman has been a leader for over 25 years in the American chemical Council's responsible care program to protect the environment, health and safety of employees, 328 01:01:25.590 --> 01:01:28.320 Suzanne: communities, and the people who handle their products. 329 01:01:28.680 --> 01:01:41.370 Suzanne: In 2012, they were awarded responsible care company of the year, and they are the first chemical company to receive the Energy Star partner of the year, sustained excellence award - EPA's highest energy star award. 330 01:01:41.880 --> 01:02:00.030 Suzanne: Newsweek has named them as one of the top greenest companies in America, a strong partner with the Longview Chamber of Commerce. Eastman will celebrate 67 years with the Chamber in December of this year. The EPA predicted ethylene oxide cancer risk is controversial and perhaps 331 01:02:01.830 --> 01:02:02.940 Suzanne: with naturally occurring Eo. 332 01:02:04.260 --> 01:02:16.500 Suzanne: We respectfully request the EPA abandon the current proposed risk level and take a deeper review of science, more in line with the pure regulatory agencies. Again, thank you for this time to make comments, thank you. 333 01:02:17.580 --> 01:02:21.210 Janetta Coats: Thank you Suzanne and I will turn the mike over to Debora. 334 01:02:23.160 --> 01:02:36.270

Debora Browning: Thank you Janetta and thank you Suzanne. We appreciate your comments. I do have another question for Fran and this comes from Eric Lawrence with Hallsville HS. His question is: 335 01:02:36.840 --> 01:02:51.360 Debora Browning: Could you please clarify again the difference between the measured and actual emissions values word the MIT were the measured and actual emission values views and the risk assessment calculations. 336 01:02:57.510 --> 01:02:58.530 Fran Verhalen: Yes. 337 01:03:00.990 --> 01:03:21.990 Fran Verhalen: If that's what we were told - um let me back up for a minute. Um, measured values go into the calculation of emissions from the facility, but, in addition, the calculated values also go in there. 338 01:03:23.820 --> 01:03:24.660 Fran Verhalen: Different 339 01:03:25.830 --> 01:03:36.390 Fran Verhalen: process units will have different emissions and some of the emissions are measured and some of them are calculated and it's a cumulative total 340 01:03:36.780 --> 01:03:52.770 Fran Verhalen: of ethylene oxide emissions that are is reported by Eastman to the State and EPA on an annual basis. Those values were what we used in our risk model. So -341 01:03:54.090 --> 01:04:02.250 Fran Verhalen: so yes, are measured values in there and there are calculated values, because it depends on which unit and 342 01:04:03.630 --> 01:04:10.830 Fran Verhalen: and that's a standard practice for industry, not every unit can be measured 343 01:04:11.880 --> 01:04:34.680 Fran Verhalen: each year and every day. So there are standardized calculations that go into determining the ethylene oxide emissions from a facility, and it is by unit. And then it will be a cumulative total across of St hope that VF4]. Hope that answers your question.

01:04:44.760 --> 01:04:55.830 Debora Browning: It looks like I have another comment from Sam Vic; he posted in the chat box. He said Eastman is a major active industry partner with hospital. 345 01:04:56.250 --> 01:05:07.980 Debora Browning: Eastman helps provide career guidance to our junior high and high school students, along with technical education assistance. Students have received many opportunities for scholarships through the education partnership. 346 01:05:08.400 --> 01:05:18.420 Debora Browning: And all interaction with students, Eastman consistently emphasizes the importance of safety, health and environmental stewardship Thank you Mr Sam Vic. 347 01:05:19.350 --> 01:05:31.200 Debora Browning: And I don't see any other questions in the chat box at this time, please feel free to write to write your questions or even comments in the chat box and we'll be sure and share that with everyone. 348 01:05:36.780 --> 01:05:42.510 Debora Browning: Janetta, let's come back to you to see if we have any hand raises or any dial-in participants with questions. 349 01:05:42.960 --> 01:05:52.290 Janetta Coats: Thank you, Debora. I am checking the numbers as we speak, and at this time I do not see any hands 350 01:05:52.350 --> 01:05:53.280 jjeffus: being raised. 351 01:05:56.370 --> 01:05:57.420 Janetta Coats: No, I do not. 352 01:06:00.510 --> 01:06:01.650 Janetta Coats: Okay back to you, Debora. 353 01:06:06.930 --> 01:06:18.840 Debora Browning: Thank you Janetta. Just as a reminder, while we wait for people to think about their questions if they have additional questions, again, I want to thank the citizens of the Community for participating in tonight's

01:06:19.620 --> 01:06:35.760 Debora Browning: meeting also if you have additional questions after the meeting and you'd like to send them into EPA for response you can send your questions to our EPA region six mailbox, which is R six ethylene oxide@epa.gov. 355 01:06:36.240 --> 01:06:44.010 Debora Browning: This has been posted on several times in our email box and we will again have it available near the end of our presentation. 356 01:06:56.160 --> 01:07:01.920 Debora Browning: And for those that have questions that they'd like to submit to Eastman chemical company. 357 01:07:03.180 --> 01:07:13.980 Debora Browning: Mr Coggins mentioned they can send those questions to Eastman chemical company at info@eastman.com. 358 01:07:19.350 --> 01:07:24.150 Janetta Coats: Debora, I believe I see one new message; you can you see that. 359 01:07:25.290 --> 01:07:28.680 Debora Browning: It has not popped up on my screen, Janetta. Would you like to go ahead and read it? 360 01:07:29.040 --> 01:07:33.570 Janetta Coats: It said message, but it's not showing the message. So, whomever, 361 01:07:34.680 --> 01:07:41.910 Janetta Coats: just post their message. If you would like to unmute and ask your question, please do so at this time. 362 01:07:42.930 --> 01:07:44.550 Janetta Coats: It is still not showing up. 363 01:07:47.850 --> 01:07:49.260 Janetta Coats: Or maybe they change their mind. 364 01:07:56.400 --> 01:07:57.810 Janetta Coats: Okay, Debora, it's not showing up. 365

01:07:58.710 --> 01:08:13.800 Debora Browning: Okay, currently, Fran, currently, we have no additional questions, either through our chat box or through our hand raises or even with our dial-in participants. Is there anything else you'd like to mention at this time. 366 01:08:18.180 --> 01:08:19.800 Fran Verhalen: We will be having 367 01:08:20.970 --> 01:08:21.720 Fran Verhalen: additional 368 01:08:23.910 --> 01:08:34.080 Fran Verhalen: community meetings over the next three weeks. We have six additional meetings. We will be in St Gabriel, Louisiana on Thursday night. 369 01:08:35.550 --> 01:08:48.300 Fran Verhalen: We will be at Port Neches, Texas next Tuesday. The following Thursday, we will be in Hahnville, Louisiana, followed by Reserve, Louisiana. 370 01:08:50.250 --> 01:08:51.300 Fran Verhalen: And then -371 01:08:52.440 --> 01:08:54.510 Fran Verhalen: let's see - and then, we go to Houston. 372 01:08:55.830 --> 01:09:21.360 Fran Verhalen: And our final meeting on August 31, the final scheduled meeting for this series will be in Lake Charles, Louisiana. So if you come up with any other questions, please feel free to send them to us at R six ethylene oxide@epa.gov or come to another meeting and 373 01:09:22.710 --> 01:09:30.810 Fran Verhalen: let us hear from you. We appreciate your time and attention this evening. I know that, so I appreciate all the comments and the questions, thank you. 374 01:09:31.770 --> 01:09:34.230 Debora Browning: Then we do have another question from Robert. 375 01:09:34.230 --> 01:09:37.770 Debora Browning: plan and the bathroom[VF5].

376 01:09:38.820 --> 01:09:47.730 Debora Browning: EtO concentration in non-industrial areas seems to be high, higher than EPA's risk value; can you explain this? 377 01:09:49.140 --> 01:09:50.760 Fran Verhalen: Yes, the 378 01:09:52.020 --> 01:09:55.500 Fran Verhalen: and, and that's a great question. 379 01:09:59.790 --> 01:10:08.460 Fran Verhalen: Values that we're finding in the background samples are higher than EPA's risk value. 380 01:10:10.380 --> 01:10:33.630 Fran Verhalen: We don't know the origin for the ethylene oxide. We are still researching to determine not only where it's coming from, but if it is an artifact of sampling, if there is some sort of cross contamination, if there are sources that we don't know about, if 381 01:10:35.430 --> 01:10:39.930 Fran Verhalen: our sampling protocol is not sufficient to provide 382 01:10:42.390 --> 01:11:01.710 Fran Verhalen: the accurate measurement of what's found in nature. So we're still looking for that and, and, yes, it is - it's higher than we expected and so we're trying to make some determinations. We have already gone through several steps to clean up 383 01:11:02.730 --> 01:11:13.290 Fran Verhalen: the sampling protocol and work toward identifying exactly what's found at a background level so yes. 384 01:11:24.330 --> 01:11:38.370 Debora Browning: Again, if you have any questions, please feel free to write them in the chat box, raise your hand, or, if you have a dial in from dialing in, please press star six to unmute your line to ask your question. 385 01:12:03.360 --> 01:12:15.870 Debora Browning: Fran, I have no other questions that are coming in. We'll wait a few more minutes to see if some come in so we'll talk while we wait. It may be just a little bit of a quiet time.

386 01:12:18.030 --> 01:12:19.380 Janetta Coats: And, Debora, there are no 387 01:12:20.610 --> 01:12:26.640 Janetta Coats: hands raised or phones designed to speak at this time as well. 388 01:12:28.740 --> 01:12:29.580 Debora Browning: Thank you, Janetta. 389 01:12:41.730 --> 01:12:44.040 Debora Browning: I do have a comment from Duane Shaw. 390 01:12:45.330 --> 01:12:55.200 Debora Browning: He'd like to thank EPA for this information. It's made him feel better, even about what Eastman is doing to control the EO emissions in their area. 391 01:12:56.820 --> 01:12:58.410 Debora Browning: And then Suzanne also 392 01:12:59.670 --> 01:13:05.160 Debora Browning: made a comment: Thank you so much for your time and for the opportunity to provide comments and ask questions. 393 01:13:07.440 --> 01:13:08.370 Debora Browning: Of course, our 394 01:13:09.480 --> 01:13:19.170 Debora Browning: meeting tonight does go till eight o'clock. I know that, with everybody's time is very important and valuable and we don't want to keep you any longer 395 01:13:19.920 --> 01:13:31.110 Debora Browning: than necessary. However, we will still be available for a little while longer if you have additional questions. What I'd like to do is, Fran, go ahead and go to the next slide please. 396 01:13:36.390 --> 01:13:36.750 Fran Verhalen: There we go. 397

01:13:43.860 --> 01:13:45.120 Fran Verhalen: This is the slide you meant. 398 01:13:45.750 --> 01:13:47.760 Debora Browning: The next slide; oh that's good. 399 01:13:48.270 --> 01:13:55.530 Debora Browning: Oh come, you know. First of all, since we have no additional questions and your time is valuable and we recognize that, 400 01:13:55.770 --> 01:14:12.660 Debora Browning: EPA would like to thank you for attending the meeting on ethylene oxide near Eastman chemical facility in Longview. And we remind you again to submit any additional questions to the EPA region six email box at R six ethylene oxide@epa.gov [R6ethyleneoxide@epa.gov]. 401 01:14:14.610 --> 01:14:20.880 Debora Browning: EPA will provide a response to your email so be sure to include your contact information with your question or comment. 402 01:14:21.750 --> 01:14:38.280 Debora Browning: In addition, I remind you, to submit additional questions or comments to the Eastman chemical company at info@eastman.com. The Eastman chemical company will provide a response to your email, so be sure to include your contact information with your questions or comments. 403 01:14:39.510 --> 01:15:00.780 Debora Browning: For those without a computer access, who are unable to submit written questions or comments, verbal request for additional information may be made by contacting Gloria Vaughn, EPA associate director for the environmental justice at 214-665-7535. 404 01:15:03.600 --> 01:15:06.990 Debora Browning: At this time, next slide please. 405 01:15:07.530 --> 01:15:13.920 Fran Verhalen: Hey Debora. Do we have any questions from the Spanish interpreters? 406 01:15:19.470 --> 01:15:22.110 Debora Browning: We haven't seen any come in through the chat box yet. 407 01:15:22.470 --> 01:15:23.460

Fran Verhalen: Okay, thank you.

408 01:15:29.850 --> 01:15:39.090 Debora Browning: Since we have no additional questions in the chat box, no more hand raises or any additional questions, through our dial-in participants,

## 409

01:15:39.540 --> 01:15:53.610

Debora Browning: this concludes our meeting and this event has been recorded. EPA will post the recording along with the Q and A's to the EPA region six websites for ethylene oxide, which will be posted here in a moment on your screen.

## 410

01:15:54.360 --> 01:16:00.420 Debora Browning: Written transcriptions of this recording in English and Spanish will also be posted to the website.

## 411

01:16:01.590 --> 01:16:12.030 Debora Browning: uh, I would like to thank the interpreters for their services this evening. Lastly, and most importantly EPA would like to thank you for participating. Good evening.