

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

COUNCIL OF THE CITY OF PHILADELPHIA

COMMITTEE ON THE ENVIRONMENT

- - -
Room 400, City Hall
Philadelphia, Pennsylvania
Thursday, April 8, 2010, 1:10 p.m.
- - -

Bill 090923 - Amending Title 4 of the
Philadelphia Code, entitled "The Philadelphia
Building Construction and Occupancy Code," by
amending Subcode "B" ("The Philadelphia Building
Code"), by adding a provision requiring that
certain buildings have roof coverings that are
white in color or Energy Star-rated as highly
reflective; and by making conforming amendments
to Subcode "R" ("The Philadelphia Residential
Code"); all under certain terms and conditions.

COMMITTEE MEMBERS PRESENT:
James F. Kenney, Chair
Blondell Reynolds Brown, Vice Chair
Frank DiCicco
Curtis Jones, Jr.

- - -

1 4.8.10 - ENVIRONMENT - BILL 090923

2 COUNCILMAN KENNEY: Good

3 afternoon, ladies and gentlemen. I

4 apologize for the delay.

5 This is a meeting of the

6 Committee on the Environment to listen to

7 testimony on Bill No. 090923, which is an

8 ordinance amending Title 4 of the

9 Philadelphia Code, entitled "The

10 Philadelphia Building Construction and

11 Occupancy Code," by amending Subcode "B"

12 ("The Philadelphia Building Code"), by

13 adding a provision requiring that certain

14 buildings have roof coverings that are

15 white in color or Energy Star-rated as

16 highly reflective; and by making

17 conforming amendments to Subcode "R"

18 ("The Philadelphia Residential Code");

19 all under certain terms and conditions.

20 The first witness on the list

21 is Katherine Gajewski, from the Mayor's

22 Office of Sustainability; is she here?

23 (Witnesses come forward.)

24 MS. GAJEWSKI: Good afternoon.

25 COUNCILMAN KENNEY: Councilman

1 4.8.10 - ENVIRONMENT - BILL 090923

2 DiCicco told me that we're saving energy
3 in the room today by not having the
4 air-conditioning on, so we apologize.

5 (Laughter.)

6 Please identify yourself for
7 the record.

8 MS. GAJEWSKI: Katherine
9 Gajewski. I'm the Director of the
10 Mayor's Office of Sustainability.

11 Good afternoon, Councilman
12 Kenney and members of the Committee on
13 the Environment.

14 COUNCILMAN KENNEY: Good
15 afternoon.

16 MS. GAJEWSKI: I'm Katherine
17 Gajewski, Director of Sustainability, and
18 I'm here to testify on Bill No. 090923,
19 which proposes that cool roofs be
20 required on all new construction projects
21 in Philadelphia.

22 The Mayor's Office of
23 Sustainability is responsible for the
24 implementation of Greenworks
25 Philadelphia, the City's comprehensive

1 4.8.10 - ENVIRONMENT - BILL 090923

2 sustainability plan. One of the
3 Greenworks' goals is to reduce the amount
4 of energy Philadelphians consume. Target
5 2 of the plan sets an ambitious goal of
6 reducing citywide building energy
7 consumption by 10 percent by the year
8 2015.

9 Adopting this cool roof
10 requirement will help to move
11 Philadelphia closer to this goal by
12 helping business owners and residents to
13 reduce their energy, which will also save
14 them money.

15 The Mayor's Office of
16 Sustainability worked together with
17 Councilman Kenney's office and the
18 Department of Licenses and Inspections to
19 ensure that this legislation
20 appropriately addresses the issues. This
21 bill seeks to accelerate market
22 transformation to a cool roof standard in
23 the building and roofing sectors by
24 modifying the existing building code.
25 The modification makes the building code

1 4.8.10 - ENVIRONMENT - BILL 090923

2 smarter and keeps compliance simple by
3 using the industry standard of Energy
4 Star cool roof rating. The incentive to
5 use white-roof technology exists already
6 in the form of energy cost savings; and
7 since there is no cost premium, the
8 payback is immediate. Cool roofs come in
9 many forms and are virtually identical in
10 cost to conventional roof materials and
11 new construction applications.

12 Cools roofs have been around
13 for decades and are widely used in
14 commercial and residential development.
15 White roofs can be applied as tiles,
16 membranes, shingles, or coatings, and are
17 suitable for all kinds of flat roofs.

18 Cities and states across the
19 country currently require cool roofs for
20 new construction due to their widely
21 acknowledged environmental, economic, and
22 energy-efficiency benefits. Several
23 cities, including Chicago, New York, and
24 Houston, have had a cool roof code
25 requirement on the books for years.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 California; North Carolina, Florida, and
3 several other states have as well.

4 It's important to note the
5 multitude of benefits associated with
6 cool roofs. First and foremost, a means
7 a cooler building. Because most of the
8 sun's heat is kept out of a building with
9 a cool roof, air-conditioning demand can
10 decrease by up to 30 percent, which
11 represents significant savings to
12 building owners.

13 A cool roof also lasts longer,
14 which is an important point. By
15 deflecting damaging solar radiation that
16 breaks down roofing materials over time,
17 a cool roof coating or membrane can
18 extend roof life by five to ten years.

19 Cool roof coatings can also be
20 reapplied over time, which means that a
21 well-maintained cool roof could last
22 twice as long as a conventional roof.
23 This represents significant upfront and
24 life-cycle cost-savings to a building
25 owner and keeps more building materials

1 4.8.10 - ENVIRONMENT - BILL 090923

2 out of the landfills.

3 Cooler buildings use less
4 air-conditioning, which decreases energy
5 consumption and harmful greenhouse-gas
6 emissions. During the summer months,
7 densely-developed areas suffer from the
8 urban heat island effect. Urban areas
9 with high concentrations of dark-roof
10 surfaces and pavement get much hotter
11 during the day and don't cool off as much
12 at night. The overall result is a warmer
13 air temperature, which leads to reduced
14 air quality.

15 Cool roofing and paving
16 materials are among the best solutions to
17 these environmental and public-health
18 issues.

19 The Mayor's Office of
20 Sustainability supports the effort to
21 advance the market adoption of
22 sustainable-building solutions that are
23 sensible and cost-neutral. While
24 focusing on energy efficiency at a
25 citywide scale, it's important to balance

1 4.8.10 - ENVIRONMENT - BILL 090923

2 economic issues with impacts on
3 communities and neighborhoods.

4 That's why, in February of this
5 year, Mayor Nutter announced the launch
6 of the citywide Retrofit Philly Cool Roof
7 Block Contest, which is underway right
8 now. The winner of this competition will
9 receive energy-saving cool roofs for
10 their entire block.

11 The contest is a partnership
12 between the City, Dow Building Supply,
13 and the Energy Coordinating Agency, and
14 seeks to promote the many benefits of
15 cool roof and educate business owners
16 about the benefits in requiring cool
17 roofs and educate citizens and business
18 owners about the benefits.

19 In requiring cool roofs on new
20 buildings, this bill formalizes a
21 building practice that is already common
22 and does not pass on added cost to
23 buildings or building owners. We look
24 forward to working with the building and
25 roofing community to better integrate

1 4.8.10 - ENVIRONMENT - BILL 090923

2 cool-roof products and practices into the
3 market.

4 Thank you. And I am happy to
5 answer any questions.

6 COUNCILMAN KENNEY: Thank you
7 very much.

8 Is there any testimony from
9 Mr. Martin and Mr. Haigler?

10 MR. HAIGLER: Good day. I am
11 Otis Haigler, Jr., Director of
12 Legislative Affairs for the Department of
13 Licenses and Inspections. I'm here with
14 Brett Martin, our code compliance
15 specialist, from the department.

16 We concur with the testimony
17 that was given by Miss Gajewski, and we
18 are here to answer any questions.

19 COUNCILMAN KENNEY: Thank you
20 very much.

21 Councilman Jones.

22 COUNCILMAN JONES: Thank you.

23 And thank you for that
24 testimony. I just have a few brief
25 questions.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 Is there a cost differential in
3 applying a white roof as opposed to your
4 traditional tars?

5 MS. GAJEWSKI: Yeah, we've been
6 doing a lot of research into that; and at
7 this point, it's pretty much cost-
8 neutral to the black-tar, traditional
9 roof material. The cost has come down
10 over time pretty, and it's pretty much a
11 standard application now.

12 COUNCILMAN JONES: The second
13 question I would have is: Conventional
14 wisdom says, if it keep it cool in the
15 summer, does it keep it cool also in the
16 winter? Is there a differential that
17 will be paid by applying a white roof in
18 the winter by way of heating that same
19 property?

20 MS. GAJEWSKI: Alex, do you
21 want to speak to this?

22 (Witness comes forward.)

23 MS. GAJEWSKI: This is Alex
24 Duce from the Mayor's Office of
25 Sustainability.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 COUNCILMAN JONES: Who? Who is
3 he?

4 MR. DUCE: My name is Alex
5 Duce, Office of sustainability.

6 What's sometimes referred to as
7 "the heating penalty" in the wintertime
8 has actually been disproven because the
9 sun angles at that of year much lower, so
10 there is no heating loss incurred by
11 buildings with a white roof.

12 COUNCILMAN KENNEY: Plus I
13 understand that there is a line, I guess,
14 across the country that you're either
15 above or below. If -- and we're kind of
16 right on it, where we have more cooling
17 days -- we need to cool the inside of the
18 building more times during the year than
19 we do to heat it.

20 MR. DUCE: That's correct.

21 COUNCILMAN KENNEY: Is that
22 accurate?

23 MR. DUCE: Yes.

24 COUNCILMAN JONES: Is there a
25 different application by way of hot

1 4.8.10 - ENVIRONMENT - BILL 090923

2 tars or -- yeah, is there a different
3 application that would have pushback from
4 the industries such as the roofers? Has
5 there been any negotiations with them
6 about what this impact will have on their
7 industry?

8 MR. DUCE: There are a number
9 of different ways that you can apply a
10 cool-roof coating or a cool-roof
11 membrane, and it's pretty widespread in
12 the building industry. And so, as far as
13 I'm aware, there's no pushback.

14 COUNCILMAN KENNEY: It's still
15 the roofers putting 'em on.

16 COUNCILMAN JONES: Are they --
17 it's the same people putting them up,
18 basically?

19 MR. DUCE: That's correct.
20 Some of the manufacturers of the products
21 do require a certification to work with
22 their product. But, no, it's not a
23 different -- it's not an altogether
24 different process.

25 COUNCILMAN JONES: Thank you,

1 4.8.10 - ENVIRONMENT - BILL 090923

2 Mr. Chairman.

3 COUNCILMAN KENNEY: Thank you
4 very much.

5 Any questions for these
6 witnesses?

7 (No further questions or
8 comments.)

9 COUNCILMAN KENNEY: Seeing
10 none, we'll call Joe Rokowski and Cory
11 Suter.

12 (Witnesses come forward.)

13 COUNCILMAN KENNEY: Good
14 afternoon. Please identify yourself for
15 the record and proceed.

16 MR. ROKOWSKI: My name is Joe
17 Rokowski, from the Dow Chemical Company.

18 MR. SUTER: And I'm Cory Suter.
19 I'm a small-roofing contractor here, in
20 the City.

21 COUNCILMAN KENNEY: Whoever
22 would like to start, it's fine.

23 MR. ROKOWSKI: Good morning,
24 Councilmembers. Thanks for having me
25 here. My name is Joseph Rokowski from

1 4.8.10 - ENVIRONMENT - BILL 090923

2 the Dow Advanced Materials Division of
3 the Dow Chemical Company, headquartered
4 here in Philadelphia.

5 I've been a research scientist
6 with Dow Chemical for 27 years in the
7 building and construction group, and 26
8 of those 27 years has been with the Rohm
9 and Haas Company. I've been working on
10 elastomeric roof coatings for the last
11 ten years, and they're a big part of my
12 life.

13 It's a pleasure to be here to
14 provide commentary on Representative
15 Kenney's bill.

16 Dow Chemical is a global
17 company involved in a lot of facets of
18 the building and construction industry.
19 We provide a lot of innovative materials
20 to buildings and construction, from
21 Styrofoam insulation to the GREAT STUFF
22 foam in a can, to polymers for
23 elastomeric white-roof coatings.

24 Sustainable energy is a
25 particularly important area for us as we

1 4.8.10 - ENVIRONMENT - BILL 090923

2 seek to improve our nation's energy
3 security, address global warming, and
4 help consumers manage their energy costs.

5 Rohm and Haas/Dow has supported
6 Philadelphia in a cool-roofing program a
7 number of years, and we came out with the
8 first elastomeric roof-coating polymer in
9 1980, and it's still in wide use today.

10 In the early 2000s, we provided
11 polymeric ingredients to make elastomeric
12 roof coatings for the Energy Coordinating
13 Agency of Philadelphia Cool Block Program
14 under the leadership of Liz Robinson.
15 And recently, to support the continuing
16 education of the community, we are
17 currently partnered with the City of
18 Philadelphia and the ECA on the Retrofit
19 Philly Cool Block Contest.

20 So we really believe in the
21 goals and the aims to convert a lot of
22 roofs from dark colors to white for
23 sustainability and energy improvement.

24 Just a couple of statistics for
25 you:

1 4.8.10 - ENVIRONMENT - BILL 090923

2 A 1 degree increase in air
3 temperature increases smog by 3 percent
4 and energy and demand by 2 percent, so
5 you can imagine what the savings and
6 implications are if we drop the
7 temperature of a roof from 150 degrees
8 down to 120 degrees, and that's a common
9 thing to do.

10 Steven Chu, the U.S. Secretary
11 of Energy, and Nobel-winning scientist,
12 said that making roofs and pavements
13 white or light-colored would help to
14 reduce global warming by both conserving
15 energy and reflecting sunlight back into
16 space. It would, he said, be the
17 equivalent of taking all of the cars in
18 the world off the road for 11 years; he
19 said this only a couple of months ago, so
20 the awareness is out there.

21 Elastomeric Roof Coatings, we
22 believe are very sustainable,
23 cost-effective, and easy solutions to
24 help enhance energy savings in homes and
25 preserve the integrity of roofs. We feel

1 4.8.10 - ENVIRONMENT - BILL 090923

2 that these coatings and white-roof
3 coating membranes can be useful tools to
4 help satisfy the requirements for this
5 bill in new construction.

6 You probably heard this many
7 times. You know, reflective roofs can
8 prevent heat from being absorbed into the
9 home. White elastomeric roof coatings
10 can typically provide a 50- to 80-degree
11 cooler roof temperature than normal.
12 This helps create a more comfortable air
13 temperature environment and reduce
14 air-conditioning costs by as much as 20
15 percent. We have a lot of data and a lot
16 of information that we've generated over
17 the years on this.

18 These coatings are easy to
19 apply. They're water-borne and they're
20 thick. Once applied, they go down in two
21 coats and a very thick membrane. If you
22 had pulled the membrane off the roof,
23 this is what it would look like. It's
24 very thick, nice and pliable, it stays
25 white for a long period of time.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 So the energy savings is a part
3 of the value of elastomeric roof
4 coatings. And once some of the questions
5 come up about the impact of applying roof
6 coatings in a northern climate, that is
7 one facet of it.

8 But the major thing is the
9 sustainability part of it. Even if you
10 don't get all of the energy savings or a
11 maximum amount of energy savings, as in
12 the northern climates like, you know,
13 Minnesota and places like that, it still
14 serves to protect the roof from
15 ultraviolet radiation, so you don't have
16 to tear the roof off, so that you can
17 keep that out of the landfill and don't
18 have to replace it every ten years. And
19 that's a big advantage on the
20 sustainability side.

21 In summary, we know how roofs
22 fail; we have to know how they fail so
23 that we can keep them from failing by
24 providing them with alternate coatings,
25 coatings with higher performance and

1 4.8.10 - ENVIRONMENT - BILL 090923

2 membranes. That means working closely
3 with our customers -- approved
4 roof-coating manufacturers who buy our
5 resins. They're the experts on these
6 formulations. We help them, we work with
7 them, they work with us.

8 For a new roof construction, it
9 helps to have a coater who's a trained
10 applicator who knows which coating to use
11 on a given substrate and who has
12 knowledge and skill to apply it
13 correctly.

14 So, in closing, I'd like to
15 state that for many people in
16 Philadelphia and across the country, the
17 cost of energy is the second-highest
18 expense next to the mortgage or the rent.
19 We are working to constantly improve the
20 performance of the elastomeric cool-roof
21 technology right here in Pennsylvania.

22 Effective building codes like
23 this one and modifications to it are an
24 excellent way to deploy this low-cost
25 technology to help cool the earth, reduce

1 4.8.10 - ENVIRONMENT - BILL 090923

2 energy (indiscernible), and save
3 consumers money. Philadelphia can be the
4 leader in providing a simple,
5 cost-effective solution to our energy
6 problems.

7 COUNCILMAN KENNEY: Thank you
8 very much.

9 Just one issue that came up
10 when we talked about green roofs in some
11 of our past hearings. One of the
12 benefits to the green-roof technology was
13 that the water had a chance to filter
14 through as opposed to bringing with it
15 the chemicals that are on the tar roof
16 into the storm-water system and then has
17 to be treated.

18 Is there any improvement to the
19 water quality that's coming off a roof
20 into a downspout on a white roof?

21 MR. ROKOWSKI: I think Cory can
22 answer this better. I think he's got
23 some experience with vegetated roofing.

24 But if the vegetated roofing is
25 designed well, you can manage the water

1 4.8.10 - ENVIRONMENT - BILL 090923

2 to come in and to not be exposed to any
3 of those materials --

4 COUNCILMAN KENNEY: Right.

5 MR. ROKOWSKI: -- and be usable
6 for a lot of different applications other
7 than being potable water.

8 COUNCILMAN KENNEY: But my
9 question is: Does the white roof provide
10 less intrusion of bad chemicals into the
11 storm-water system by it not being
12 asphalt?

13 MR. ROKOWSKI: I can't speak to
14 what the vegetated roofing and runoff
15 from that roofing brings.

16 I do know this: We do have
17 formulations, and they're very, very
18 similar to the ones that are used now in
19 Philadelphia, that are used in
20 steep-slope roofs in the Caribbean. And
21 if we take out one or two ingredients --
22 not ours, but other formulation
23 ingredients -- they are suitable for
24 potable water.

25 So the rain water can land on

1 4.8.10 - ENVIRONMENT - BILL 090923

2 'em, can run down the gutter, can be
3 collected in a 55-gallon drum, and the
4 residents could drink that water.

5 They're certified NSF formulations that
6 are suitable for that.

7 COUNCILMAN KENNEY: So it's an
8 improvement over the asphalt roof?

9 MR. ROKOWSKI: I believe so,
10 yeah.

11 COUNCILMAN KENNEY: Any
12 questions for --

13 COUNCILWOMAN BROWN: Yes.

14 COUNCILMAN KENNEY:
15 Councilwoman Brown.

16 COUNCILWOMAN BROWN: Good
17 afternoon.

18 MR. ROKOWSKI: Good afternoon.

19 COUNCILWOMAN BROWN: Thank you
20 for your very important testimony.

21 MR. ROKOWSKI: Thank you.

22 COUNCILWOMAN BROWN: Can a
23 layperson assume by this, then, that one
24 can purchase what you just illustrated
25 here at a local Home Depot and Lowe's and

1 4.8.10 - ENVIRONMENT - BILL 090923

2 stores of that?

3 MR. ROKOWSKI: By "purchasing
4 this," do you mean the --

5 COUNCILWOMAN BROWN: The white
6 -- the --

7 MR. ROKOWSKI: White
8 elastomeric roof coatings? They're
9 available in the -- those are the ones
10 you're talking about, correct?

11 COUNCILWOMAN BROWN: Yes.
12 The -- what you just showed us up there.

13 MR. ROKOWSKI: Yes. They're
14 available in Lowe's, Home Depot, a lot of
15 hardware stores. They're in a lot of
16 distribution centers in the United
17 States. So they're very, very easy to
18 find.

19 COUNCILWOMAN BROWN: Very,
20 very...?

21 MR. ROKOWSKI: Very easy to
22 find and purchase.

23 COUNCILWOMAN BROWN: Very easy
24 to find, okay.

25 And say it slowly, what that

1 4.8.10 - ENVIRONMENT - BILL 090923

2 is. I keep missing it. It's called a
3 white...?

4 MR. ROKOWSKI: A white
5 elastomeric roof coating.

6 COUNCILWOMAN BROWN: Got it,
7 okay. Thank you very much.

8 MR. ROKOWSKI: You're very
9 welcome.

10 COUNCILMAN KENNEY: Councilman
11 Jones.

12 COUNCILMAN JONES: Thank you,
13 Mr. Chairman, and thank you for having
14 these important hearings, 'cause I do
15 think it can make a difference in
16 Philadelphia, and it's one step closer to
17 reducing our carbon footprint as a
18 municipality.

19 Are there varying levels of
20 intensity or thickness or texture to
21 these so that one might be a commercial,
22 the other industrial? Are there
23 different --

24 MR. ROKOWSKI: That's a good
25 question. So are there different grades

1 4.8.10 - ENVIRONMENT - BILL 090923

2 of coating --

3 COUNCILMAN JONES: That's it.

4 MR. ROKOWSKI: -- and different
5 thicknesses that can be applied?

6 COUNCILMAN JONES: Yes.

7 MR. ROKOWSKI: There are. It's
8 best to use coatings that are recommended
9 by the National Roof Coatings Association
10 or that fully meet Energy Star.

11 There are a large of number of
12 products on the DOE Energy Star Website.
13 And if you look in there under "roof
14 coatings," there's a listing of approved
15 coatings that meet solar reflectivity
16 requirements for elastomeric roof
17 coatings.

18 COUNCILMAN JONES: You
19 mentioned in your testimony that some
20 need to be applied through certified
21 installers. Can you elaborate from --
22 Councilwoman Reynolds-Brown's comments
23 was, can anyone buy 'em at Home Depot?

24 The question begs itself:
25 Should anyone who doesn't know what

1 4.8.10 - ENVIRONMENT - BILL 090923

2 they're doing buy 'em at Home Depot, and
3 at what level do you require, or should
4 we require, that type of certification?

5 MR. ROKOWSKI: Normally, with
6 respect to this bill -- and this bill is
7 for new construction, correct?

8 COUNCILMAN JONES: Correct.

9 MR. ROKOWSKI: If it's new
10 construction, we would recommend a
11 professional contractor; they have the
12 experience, they know how to install it,
13 they know how to prepare the roof, they
14 know the right coating to buy. You want
15 to do it right from the start.

16 And there are a number of
17 coatings and contractors that are geared
18 towards new construction.

19 COUNCILMAN JONES: Do any of
20 them require certifications?

21 MR. SUTER: Maybe I can speak
22 to this as a roofer.

23 COUNCILMAN KENNEY: Before you
24 start, you could also buy a heater or a
25 water heater at Lowe's and Home Depot and

1 4.8.10 - ENVIRONMENT - BILL 090923

2 put 'em in yourself, and that's more
3 frightening than the roof 'cause you're
4 dealing with gas there. So there's lots
5 of stuff you can buy there that's a pain.

6 But go ahead. I'm sorry.

7 MR. SUTER: Yes. So one
8 clarification to make is that there are
9 actual --

10 COUNCILMAN KENNEY: Could you
11 identify yourself for the record?

12 MR. SUTER: Certainly. I'm
13 Cory Suter. I'm a small-roofing
14 contractor here, in the City of
15 Philadelphia.

16 I think one distinction that's
17 important to make is that there are white
18 membranes that are like a whole cool-roof
19 system, such as, TPO, which is a thermal
20 plastic, or PBC, which is another type of
21 plastic, versus the coatings. And those
22 membranes typically require additional
23 certifications, which myself, as a
24 smaller roofer, has not been able to get
25 to be install those type of membranes; I

1 4.8.10 - ENVIRONMENT - BILL 090923

2 haven't gone through the training to do
3 that yet.

4 However, there was no training
5 required for me to learn how to put on
6 the acrylic coatings that are being
7 talked about. And those acrylic coatings
8 are available -- to answer another
9 question that was brought up -- at Home
10 Depot and Lowe's as well as a number of
11 roofing supply and hardware stores in the
12 City.

13 There are some roofing-supply
14 companies, particularly Ivan Roofing,
15 that does not yet supply any of the white
16 acrylics. However, in talking with their
17 management, they said that if enough
18 demand came, they would definitely be
19 supplying it.

20 And so sometimes, it's just --
21 it does take time for some of the roofers
22 to change the type of materials that
23 they're working with because they get
24 comfortable with a certain type of
25 roofing material. However, these

1 4.8.10 - ENVIRONMENT - BILL 090923

2 coatings are pretty easy -- can be
3 learned how to install in a relatively
4 short amount of time.

5 I worked with -- I've been
6 teaching some classes here, in the City,
7 about green roofs and cool roofs. And in
8 about half an hour of classroom training
9 and in about twenty minutes of on-the-job
10 training, I've gone over all of the
11 basics that were needed to be able to
12 install these white coatings properly.

13 COUNCILMAN JONES: I guess
14 where I'm going is: Is there a
15 suggestion, and as we go through our
16 chairman, under these circumstances, this
17 regulation, should there be a
18 certification required? because if we're
19 putting up a rec center roof, you know,
20 and we're dealing with materials that
21 need to be handled in a particular way or
22 installed in a particular way or with
23 some knowledge as to not allow them to
24 mix with other chemicals, you work for
25 Dow Chemical.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 MR. ROKOWSKI: That's correct.

3 COUNCILMAN JONES: If I put on
4 that roof, please believe their scenario
5 about the water heater is as frightening
6 as me putting on that roof.

7 So I'm asking for suggestions,
8 I guess, as to where this certification
9 should apply.

10 MR. ROKOWSKI: I do have one.
11 I don't know if certification is
12 required. As Cory said, if it's a white
13 TPO membrane, a white plastic membrane
14 like this, they have performance
15 standards built into them. The
16 installers know how to install them.

17 If you have a white acrylic
18 roof coating, all you have to do is
19 follow the manufacturer's guidelines and
20 recommendations for what substrate it
21 should be on, how the substrate should be
22 cleaned, how thick it should be applied,
23 under what circumstances it has to dry.

24 If you follow the guidelines
25 for these products, I think you're -- you

1 4.8.10 - ENVIRONMENT - BILL 090923

2 won't have any trouble.

3 COUNCILMAN JONES: Okay.

4 MR. ROKOWSKI: And it doesn't
5 really take that much training to get
6 non-contractors to apply these white
7 elastomeric water-borne roof coatings to
8 roofs. And this is a perfect example.
9 Corey's been doing it for a while.

10 MR. SUTER: Yeah. These
11 coatings are essentially like a thick,
12 rubberized paint that's brushed on the
13 roof.

14 The most important things to do
15 in preparation of putting on these
16 coatings are to properly clean the roof
17 so that there's not a layer of dust that
18 would cause the coatings not to adhere;
19 and also, there needs to be roofing
20 knowledge on how to make any necessary
21 repairs prior to putting down the
22 coating, 'cause the roof has to be in
23 fair to good condition, using standard
24 roofing procedures. There's an acrylic
25 patching cement that's used to prepare

1 4.8.10 - ENVIRONMENT - BILL 090923

2 flashings and penetrations.

3 So I mean, at this point, to my
4 knowledge, there's not a test that needs
5 to be passed to become a roofer in this
6 city or a certain certification. And I
7 think if we were talking about that, that
8 would be a separate bill that would need
9 to be required for there to be an
10 additional level of training and
11 certification for those that are doing
12 roofs in this city.

13 But as far as these white
14 coatings go, there's not that much of an
15 extra level of complication between doing
16 them and doing more traditional types of
17 roof.

18 And, in fact, they're a lot of
19 safer for the roofer's health -- I'm kind
20 of going off on my testimony in an
21 attempt to kind of best answer the
22 questions that have been laid out here.

23 But one of the things that's
24 really attractive about these white
25 coatings and white roofs is that they are

1 4.8.10 - ENVIRONMENT - BILL 090923

2 low VOC, so there is less volatile
3 organic chemicals and other toxic
4 chemicals that have -- as studies have
5 shown and as I have written in testimony,
6 a roofer's life expectancy is
7 significantly lower than the average
8 population because of their exposure to
9 harsh chemicals.

10 COUNCILMAN JONES: Thank you.

11 Thank you, Mr. Chairman.

12 COUNCILMAN KENNEY: Thank you
13 very much.

14 Any other questions?

15 Do you have testimony?

16 MR. SUTER: So I'd like to
17 offer my testimony and also answer
18 another question that was brought up,
19 which is: How are these -- do these cool
20 roofs make good sense in our climate?

21 And what I have experienced as
22 a roofer and know is that, indeed, the
23 worst time to have a black roof that is
24 heating up is in the wintertime because
25 when the -- when a roof is heating up in

1 4.8.10 - ENVIRONMENT - BILL 090923

2 the wintertime, it's expanding; and then
3 once the sun goes behind the clouds at
4 night, it freezes and contracts. And so,
5 that's what often causes these membranes
6 to break down quicker.

7 On top of that, the sun is less
8 direct in the horizon; as Alex Duce
9 brought up, the sun is less intense.

10 However, there is some energy
11 -- there is a net energy gain overall.
12 What happens in the wintertime is that
13 you actually do increase your heating
14 costs for the home just a little bit, but
15 that is offset by the cooling costs in
16 our climate. And the biggest cost
17 savings of these cool roofs is the roof
18 longevity.

19 COUNCILMAN KENNEY: Do you want
20 to offer formal testimony, or you've
21 summarized your testimony for the most
22 part, or is there anything you need to
23 add?

24 MR. SUTER: I've been trying to
25 summarize the testimony that I thought

1 4.8.10 - ENVIRONMENT - BILL 090923

2 would be most useful to Council. If
3 there's any questions that Council would
4 have, I would be more than happy to
5 address them the best that I can.

6 Looking over my testimony, I
7 think that I've hit a lot of points.

8 I know cool roofs really are a
9 proven technology. All of Wal-Mart
10 stores are now being built with
11 cool-roofing membranes. They simply last
12 longer and result, in most climates here
13 in the states, in overall energy savings.

14 So if there's no further direct
15 questions for me, I'll let my written
16 testimony stand as presented.

17 COUNCILMAN KENNEY: Thank you
18 very much. Thanks for your time.

19 MR. SUTER: Certainly.

20 COUNCILMAN KENNEY: Liz
21 Robinson, Christine Knapp, and Janet
22 Milkman.

23 Thank you.

24 (Witnesses come forward.)

25 COUNCILMAN KENNEY: Hi.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 Whoever would like to start, please
3 identify yourself for the record.

4 MS. ROBINSON: Good afternoon.

5 COUNCILMAN KENNEY: Good
6 afternoon.

7 MS. ROBINSON: I'm Liz
8 Robinson. Good afternoon, Councilman
9 Kenney, Jones, Councilwoman
10 Reynolds-Brown and Councilman DiCicco.
11 Thank you very much for holding these
12 hearings.

13 ECA is a nonprofit corporation
14 whose mission is to help people save
15 energy and to work toward a sustainable
16 and equitable energy future for all in
17 the Philadelphia area.

18 ECA administers almost all the
19 low-income energy services in the City
20 and has been a leader in green jobs
21 training and in increasing energy
22 efficiency and sustainable of housing
23 statewide.

24 ECA enthusiastically supports
25 City Council Bill 090923, and I won't

1 4.8.10 - ENVIRONMENT - BILL 090923

2 repeat much of the enumeration of
3 benefits, but just to summarize:

4 Cool roofs will help reduce
5 energy costs; reduce peak electrical
6 load; have positive public-health
7 benefits; extend the life of roofs and,
8 thereby, reduce building maintenance
9 costs. They will also help mitigate the
10 urban heat island effect, and they may
11 even help slow climate change if we do
12 enough of them.

13 So how can one single
14 technology do all of these wonderful
15 things.

16 You've heard a bit about their
17 properties. I'd like to extend the
18 testimony in the direction of public
19 health by explaining how we got involved
20 in doing white-roof coatings.

21 ECA began using white-roof
22 coatings on existing rowhomes in 1994 in
23 an effort to develop an affordable
24 cooling approach for homes principally
25 occupied by elderly, low-income people.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 As you may remember, the 1990s
3 were the hottest decade on record. And
4 during that ten-year period, Philadelphia
5 experienced four summers with what the
6 health community calls "extreme heat
7 events," and I call them "killer heat
8 waves."

9 So during the summer of 1993,
10 118 people died of heat-related illness;
11 most were elderly, low-income people
12 living without air-conditioning or with
13 just a single window unit in one home.

14 The Philadelphia rowhome is
15 essentially a brick box, with a flat, tar
16 roof, a flat, black-tar roof. And during
17 the summer, these roofs become
18 unintentional solar collectors, reaching
19 temperatures as high as 198 degrees.
20 They transfer much of that heat to the
21 brick walls and other materials of the
22 home.

23 So on a third day of a heat
24 wave, the temperature in an
25 unairconditioned home can reach 115

1 4.8.10 - ENVIRONMENT - BILL 090923

2 degrees on the top floor even though it
3 might only be 95 outside of the. This
4 house essentially is becoming literally
5 becoming a brick oven.

6 As climate change proceeds,
7 these killer heat waves are predicted to
8 become more frequent and more intense.

9 ECA designed the Cool Homes
10 Program in response to the problem of
11 increasingly frequent and deadly heat
12 waves and has thus far changed almost 600
13 roofs in the City from black to white.

14 The energy savings are
15 approximately 20 to 22 percent in this
16 climate. And if I could clarify a little
17 bit around the heating penalty.

18 So the white roof will reduce
19 air-conditioning load by 20 to 22
20 percent. There is a theoretical heating
21 penalty in the winter; theoretical
22 because nobody has gotten any field data,
23 but this is an engineering estimate of
24 how much your heating bill would rise.

25 But it would only rise if you

1 4.8.10 - ENVIRONMENT - BILL 090923

2 did not have any insulation. So if the
3 building is insulated, there will be no
4 heating penalty from a white roof. If
5 there is no insulation, there is an
6 engineering estimate of a 3 percent
7 increase in heating load.

8 Unfortunately, whenever we
9 install a white roof, we always insulate.
10 So it's just a part of the procedure. So
11 we combine -- the best combination is
12 insulation -- air sealing, insulation,
13 and a white roof. And those, frankly,
14 are the three measures that Dow is
15 providing through the Retrofit Philly
16 Cool Block Contest program.

17 The other thing that's very
18 important to understand about cool roofs
19 is the peak load reduction. As you know,
20 peak load is the most expensive load for
21 PECO or any utility to generate.

22 By reducing peak load, cool
23 roofs will lower the price of electricity
24 year-round for all of us. And as we're
25 facing another rate increase here at the

1 4.8.10 - ENVIRONMENT - BILL 090923

2 end of this calendar year, with PECO's
3 rate caps coming off, reducing peak load
4 is really critical to all of us.

5 I wanted to also mention on the
6 issue of improving the longevity of the
7 roof. In ECA's experience working in
8 low-income home and low-income homes,
9 roof condition, the Philly rowhome, the
10 flat roof, the low-slope roof frankly is
11 the Achilles heel of the building. It's
12 the point of failure, a very common point
13 of failure.

14 And right now, this is kind of
15 large for us because we are targeting
16 high users in the Weatherization
17 Assistance Program, and we have to reject
18 51 percent of these users because the
19 home is in such poor condition that we
20 cannot insulate it. And very, very
21 often, it's because the roof is actively
22 leaking, beyond our ability to repair it.

23 I think the other comments
24 that -- previous testimony has covered
25 the mitigation of urban heat island

1 4.8.10 - ENVIRONMENT - BILL 090923

2 impact and the potential to reduce
3 climate change.

4 I did want to comment on
5 training. I do think that training will
6 be useful in introducing anytime there
7 are new technologies introduced. As we
8 move the City toward higher levels of
9 sustainable, training is really critical,
10 and I do think that training in these
11 coatings is a very important thing to
12 consider and to make opportunities for.

13 I don't think we would need a
14 certification just for white-roof coating
15 or white roofing; I agree with the
16 previous testimony on that point.

17 And just in closing, I
18 congratulate Council for introducing this
19 legislation. I think it will be the
20 beginning of a much more sustainable and
21 a much cooler city.

22 COUNCILMAN KENNEY: Thank you.

23 Councilman Jones, do you have a
24 question?

25 COUNCILMAN JONES: Yes.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 Thank you for that input,
3 particularly letting us know about the
4 heating differential and the importance
5 of insulation.

6 When you say "insulation," is
7 there any recommended type? I know heat
8 rises. Are we talking about insulation
9 at the roof level?

10 MS. ROBINSON: Yes.

11 COUNCILMAN JONES: Are we
12 talking about reinforcing windows? Give
13 me a little --

14 MS. ROBINSON: Insulation at
15 the roof level is where you would have
16 the greatest impact, so at the top of the
17 building, because warm air rises. You
18 know, most of the heat loss in a building
19 will occur through the roof.

20 COUNCILMAN JONES: I mean, that
21 just puts clarification on it. To do
22 both is the best of --

23 MS. ROBINSON: Exactly. A
24 combination is the best, yeah.

25 COUNCILMAN JONES: Thank you,

1 4.8.10 - ENVIRONMENT - BILL 090923

2 Mr. Chairman.

3 COUNCILMAN KENNEY: Thank you
4 very much.

5 Please, whoever would like to
6 go next, please proceed.

7 MS. KNAPP: Good afternoon. My
8 name is Christine Knapp. I'm the
9 Director of Outreach, at Penn Future.
10 Penn Future is a statewide environmental
11 advocacy organization that works to
12 create a just future where nature,
13 community, and the economy thrive.

14 We enforce environmental laws
15 and advocate for the transformation of
16 public policy, public opinion, and the
17 marketplace to restore and protect the
18 environment and safeguard public health.

19 Locally, I'm the coordinator of
20 the Next Great City Initiative, which is
21 made up of a diverse coalition of over
22 125 organizations all working towards the
23 implementation of a common-sense and
24 cost-effective agenda to improve
25 Philadelphia's environment, strengthen

1 4.8.10 - ENVIRONMENT - BILL 090923

2 neighborhoods, and increase economic
3 competitiveness.

4 I'd like to thank Councilman
5 Kenney and the other Councilmembers who
6 are here today for their time and your
7 leadership in moving this legislation
8 forward. I'm happy to add to the record
9 my support for this legislation.

10 And others have already
11 enumerated the many benefits that cool
12 roofs have. They make good economic
13 sense in saving homeowners money on their
14 cooling bills and also on, as Liz pointed
15 out, that -- the cool roofs are generally
16 more durable, so they last longer, saving
17 homeowners more money there.

18 And additionally, they're --
19 it's creating some job potential for the
20 people who would actually be installing
21 the cool roofs.

22 Cool roofs are good for our
23 health, reducing the urban heat island
24 effect and reducing heat-related deaths.

25 And they also make good

1 4.8.10 - ENVIRONMENT - BILL 090923

2 environmental sense -- reducing energy
3 consumption and reducing our reliance on
4 oil and gas and other fuels whose mining,
5 production, and transportation all damage
6 our environment and contribute to climate
7 change.

8 What I really want to touch on
9 is how this legislation is really adding
10 and is a key part of the other
11 initiatives that are already going on in
12 this city to make us the greenest city in
13 America.

14 So the environmental community
15 has obviously been a leader on this
16 front. There's dozens of organizations
17 that have been advocating for years for
18 smart policies to reduce our carbon
19 footprint, reduce energy consumption,
20 make our communities healthier.

21 One of the next Great City
22 recommendations that all of these
23 organizations have come together to
24 support was to make buildings in
25 Philadelphia more energy-efficient. The

1 4.8.10 - ENVIRONMENT - BILL 090923

2 passage of the legislation that
3 Councilwoman Reynolds-Brown introduced
4 requiring new City building to meet LEEDS
5 standards was definitely an excellent
6 step in the right direction, and I think
7 this legislation also fits in with that
8 work in making buildings in Philadelphia
9 more energy-efficient and smarter.

10 There's also groups like
11 Delaware Valley Green Building Council
12 and the Energy Coordinating Agency,
13 Habitat for Humanity and others that are
14 partners that advocate for building
15 greener buildings. And other groups in
16 the City have also been advocating for
17 policies that create green jobs.

18 And this is sort of the nexus
19 of these two pushes, that Sustainable
20 Business Network and the Green Economy
21 Task Force, that they convene has hundred
22 of organizations, nonprofits, training
23 organizations, city and state and federal
24 government agencies all working together
25 to figure out how Philadelphia can become

1 4.8.10 - ENVIRONMENT - BILL 090923

2 a hub of green-economy activities.

3 There's a policy committee
4 within that task force that I co-chair,
5 and that was created in order to explore
6 ways in which good public policy can
7 drive the creation of green jobs. This
8 legislation meets the criteria that that
9 group looks for in that mandating the
10 installation of cool roofs will open
11 opportunities for existing roofers but
12 also create new opportunities for
13 unemployed or underemployed individuals
14 to get trained and start working.

15 Another sector that -- another
16 way that this fits into is obviously with
17 Mayor Nutter and his administration's
18 Greenworks' ambitious sustainable plan.
19 Among the targets in there is to retrofit
20 15 percent of housing stock with
21 installation, air sealing, and cool
22 roofs.

23 So this certainly fits in with
24 that target as well as the aim to reduce
25 citywide building energy consumption by

1 4.8.10 - ENVIRONMENT - BILL 090923

2 10 percent.

3 And then, of course, to make
4 these two goals achievable, Greenworks
5 also aims to engage in educating
6 residents on how they can make decisions
7 in their own lives that help to support
8 these overall goals.

9 For example, the Mayor's Office
10 of Sustainability has partnered with ECA
11 and with Dow for the Retrofit Philly Cool
12 Block Contest, which, besides just
13 engaging people, I think it's educating
14 people about cool roofs, why they're
15 important, and how you can go about
16 getting one.

17 And I think as more people
18 learn about them as they see maybe their
19 neighbors getting some installed, that
20 education is just going to snowball into
21 more and more people wanting to go out
22 and get them on their home as well.

23 And then, lastly, utilities
24 like PECO are also getting into the act
25 in promoting energy conservation and

1 4.8.10 - ENVIRONMENT - BILL 090923

2 efficiency. The passage of Act 129
3 requires that they reduce energy
4 consumption among their customers or face
5 penalties. To meet these goals, PECO
6 will be rolling out a series programs and
7 initiatives to help their customers make
8 smart energy choices.

9 And as rates caps come off in
10 the PECO territory, and more and more
11 customers will be looking for ways to
12 save money on energy costs, a deeper
13 understanding again of these cool roofs
14 and a well-trained workforce ready to
15 install them will be needed, and this
16 legislation will help make that happen.

17 Penn Future's tagline is:
18 "Every environmental victory grows the
19 economy." And we work to prove that
20 every day. This legislation is a perfect
21 example of public policy that can protect
22 our environment while also saving money
23 improving public health, and improving
24 our economy; it's a win/win/win. And I
25 encourage Council's support for it.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 COUNCILMAN KENNEY: Thank you
3 very much for your testimony and for all
4 your testimony over the years on all of
5 our pieces of legislation. Tank you.

6 MS. KNAPP: Sure.

7 COUNCILMAN KENNEY: Any
8 questions for Christine?

9 (No questions or comments.)

10 COUNCILMAN KENNEY: Non.
11 Please identify yourself for
12 the record.

13 MS. MILKMAN: My name is Janet
14 Milkman. I'm the Executive Director of
15 the Delaware Valley Green Building
16 Council. Thank you, Councilman Kenney
17 and members of the Environment Committee.

18 My organization is a chapter of
19 the U.S. Green Building Council, and we
20 have about a thousand members in the
21 region from all parts of the green-
22 building industry -- engineers,
23 architects, construction, green-products
24 manufacturers, folks that install the
25 cool roofs, the folks that make the

1 4.8.10 - ENVIRONMENT - BILL 090923

2 materials.

3 Are our mission is to improve
4 the sustainability of our region through
5 green-building practices, to save money,
6 improve the environment, save energy,
7 save water, reduce construction waste,
8 and improve indoor environmental quality.

9 We support this bill, and we
10 support and encourage the use of cool
11 roofs throughout the City and throughout
12 the region we represent for all of the
13 reasons that have been said, because they
14 are good for the environment, they are
15 good for human health. The technology is
16 tested and easily available, the costs
17 for cool roofs and non-cool roofs are
18 similar.

19 And I would just say that all
20 -- and we have some more information in
21 our testimony, which we have provided to
22 you on that, but I think the thing I'd
23 like to add today is that looking
24 forward, we would really encourage the
25 Council and the City Administration to

1 4.8.10 - ENVIRONMENT - BILL 090923

2 consider ways to encourage cool roofs for
3 existing buildings and for steep-slope
4 roofs in addition to the bill that you
5 are -- that you have introduced now,
6 which is a really excellent step.

7 Reducing the citywide heat
8 island effect can really only happen
9 through large-scale adoption of a new
10 standard when buildings are reroofed.
11 The story that Liz told about the
12 importance of those roofs to many of the
13 existing buildings in the City, I think,
14 is really telling.

15 So each individual building
16 that receives a white roof will
17 definitely help, but it's existing
18 buildings that have the poorest
19 insulation and receive the greatest
20 improvement and energy efficiency from
21 reflective roofs.

22 We'd also suggesting that, in
23 the future, you consider using SRI values
24 instead of the Energy Star values.
25 They're becoming the industry standard.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 They are the value that is used in the
3 LEED standard, which is a part of the
4 bill that Councilwoman Reynolds-Brown
5 introduced and the Mayor recently.

6 So in the future, maybe look
7 towards the always-increasing technology
8 that's out there. This is a great start
9 and we really -- we applaud you for your
10 leadership.

11 We think that roofers probably
12 do need some education and awareness
13 about the best type of installation for
14 the area, the climate, the buildings.
15 And we are ready and willing to help you
16 on all of those aspects.

17 COUNCILMAN KENNEY: Thank you
18 very much for your testimony.

19 Any questions for these
20 witnesses?

21 Councilwoman Brown.

22 COUNCILWOMAN BROWN: Thank you,
23 Mr. Chairman.

24 Good afternoon.

25 MS. MILKMAN: Good afternoon.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 COUNCILWOMAN BROWN: And I
3 thank you for -- professionally you do
4 this anyway, but for staying in close
5 touch with the advances we're trying to
6 make collectively. I have to say we've
7 really worked in a collaborative way with
8 these type of measures.

9 So I want to make sure I heard
10 you correctly in terms of
11 recommendations, which I remember were
12 two. SRI is the new technology and
13 that's a acronym for...?

14 MS. MILKMAN: Solar Reflective
15 Index.

16 COUNCILWOMAN BROWN: Uh-huh,
17 okay. So that's a lesson for today.

18 And the second is, did I hear
19 you say something about steep roofs?

20 MS. MILKMAN: Steep-sloped
21 roofs.

22 COUNCILWOMAN BROWN: Steep-slop
23 ed roofs.

24 MS. MILKMAN: Right, in
25 addition to flat roofs, which this bill

1 4.8.10 - ENVIRONMENT - BILL 090923

2 addresses.

3 COUNCILWOMAN BROWN: Speak to
4 that a little bit more, if you would.

5 MS. MILKMAN: Because there are
6 a lot of existing buildings and
7 potentially new buildings built with
8 roofs that are sloped as opposed to flat
9 and steep-sloped roofs also benefit from
10 cool-roof application.

11 COUNCILWOMAN BROWN: Mm-hmm.
12 Okay, then. Thank you.

13 COUNCILMAN KENNEY: Councilman
14 Jones.

15 COUNCILMAN JONES: Yes. I just
16 wanted to say thank you.

17 To be perfectly honest, one of
18 the best parts of being elected was to
19 learn in a learning curve about the
20 importance of the environment. I learned
21 from groups like yours. And I had a
22 really good intern that we recruited out
23 of Philadelphia University who had to
24 interpret everything you were saying to
25 me. He was so good at it, they hired im,

1 4.8.10 - ENVIRONMENT - BILL 090923

2 the City of Philadelphia hire him from
3 under me, Alex Duce back there. So I
4 gave him a "Who?" when he came up.

5 But I just want to thank you
6 for all you do that translates and
7 trickles in to public policy and actually
8 changes our city. And our chairman is
9 keenly aware of some of those cutting-
10 edge issues and keeps us informed as a
11 body.

12 So I just wanted to say thank
13 you.

14 COUNCILMAN KENNEY: Thank you,
15 Councilman. Thank you very much.

16 Bernadette Corujo, please.

17 (Witness comes forward.)

18 COUNCILMAN KENNEY: Good
19 afternoon. Please identify yourself for
20 the record.

21 MS. CORUJO: Hello. My name is
22 Bernadette Corujo. Thank you for hearing
23 my testimony today.

24 I am with the BASF Corporation.
25 I don't know how familiar you are with

1 4.8.10 - ENVIRONMENT - BILL 090923

2 the BASF Corporation. We are a very
3 large chemical company; we're the largest
4 chemical company in the world. We employ
5 13,000 employees in the United States --
6 in North America; that's in North
7 America, I'm sorry.

8 We've taken a triple bottom
9 line approach to sustainability, where we
10 look at the environment, the economy, and
11 the social impact of all of our products
12 and processes.

13 BASF has won multiple awards
14 for safe sustainability. We were most
15 recently voted the most sustainable
16 chemical company in the world.

17 We also are the first chemical
18 company to join the Sustainability
19 Consortium, which is a group of people
20 that get together to talk about labeling
21 programs that you'll be seeing things
22 like Wal-Mart is a member as well, but we
23 were the first chemical company to become
24 a member of the Sustainability
25 Consortium.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 BASF employs people in this
3 region in Newport, Delaware, with an
4 acquisition we made of Ciba Chemical
5 Company. We also have -- in Bristol,
6 Pennsylvania, we made an acquisition, so
7 we employ people at that location as well
8 as Minooka, Pennsylvania.

9 Our North American headquarters
10 are in floral Park, New Jersey, so a lot
11 of our initiatives have been with the
12 State of New Jersey.

13 We recently -- well, in 2006,
14 we made -- built a near-zero energy home
15 so that we used a lot of the raw
16 materials that go into making the
17 products that go into the building
18 materials in that home. And we won the
19 Governor's Award.

20 We've also three times won the
21 American Chemical Council's Energy
22 Efficiency Award.

23 Those are just some of the
24 awards that BASF has won.

25 We're very serious about

1 4.8.10 - ENVIRONMENT - BILL 090923

2 sustainability, which would include
3 energy as an aspect of but not just green
4 products.

5 So, because of all of this, I
6 wanted to say we were very excited to
7 hear about this legislation, and we want
8 to support this legislation that's
9 presented here today.

10 We make the polymers for the
11 coatings, we make the polymers. We make
12 the pigments and we make the additives
13 that go into these materials, both in the
14 coating as well as the membranes. So you
15 can add additives to make the products
16 perform differently.

17 We also make the foam that can
18 be used as installation. We make
19 multiple types of coating, so it's not
20 just acrylic; it could also be urethane
21 or silicone. So we don't have a vested
22 interest in one type of technology
23 winning over another. We also make
24 modifiers for asphalt.

25 So we believe in white-roof

1 4.8.10 - ENVIRONMENT - BILL 090923

2 coatings or reflective roofs.

3 We also have a product that
4 goes on the inside of an attic. So
5 there's multiple things.

6 We believe in looking at the
7 building envelope in total and
8 understanding that, as was previously
9 offered as testimony, that the roof is
10 the first place to start. You want to
11 have the insulation adequate so that you
12 can get the most impact from your roofing
13 product, your reflective roofing
14 material, whatever it is that's the
15 reflective coating.

16 The only other couple things I
17 wanted to add: I mentioned the locations
18 and who we employ. We also have over 500
19 customers that we partner with in this
20 area alone, so that's a lot of small
21 businesses that serve this market.

22 And we actively recruit from
23 the University of Delaware, Drexel, Penn
24 State, and the University of
25 Pennsylvania.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 I had some comments about --
3 it's not a part of my testimony, but part
4 of what I've heard so far, in terms of
5 the drainage, some of the insulation you
6 can do, you can either put in rigid
7 insulation or you could spray insulation
8 so that you could slope the roof to have
9 the rain water run off. And then, you
10 know, depending on where it goes, you
11 could recycle that water.

12 There's also materials that you
13 can make to have pervious concrete or
14 pervious asphalt to recycle and reclaim
15 the water.

16 There's a lot of things you can
17 do, but you can construct the roof in a
18 way that you can get the kind of drainage
19 you want to. You don't get the -- I
20 think you were referring to ponding
21 issues.

22 COUNCILMAN KENNEY: No,
23 actually, I was referring to chemical
24 runoff.

25 MS. CORUJO: Yeah, well, coming

1 4.8.10 - ENVIRONMENT - BILL 090923

2 off with the water.

3 COUNCILMAN KENNEY: Right.

4 MS. CORUJO: And then you can
5 filter it through these -- whether it's
6 pervious concrete or pervious asphalt if
7 you wanted to.

8 COUNCILMAN KENNEY: Mm-hmm.

9 MS. CORUJO: You mentioned --
10 insulation was already discussed.

11 And also, steep slope was
12 mentioned. If it did extend to steep
13 slope, I don't know that people would
14 want it to be white 'cause you can see
15 it, so -- but we also have reflective
16 pigment. So if that became a separate
17 bill, that would be something that also
18 could be considered.

19 So there's A lot of ways to
20 skin a cat. But overall, I think it's
21 critical that you've had two very
22 large -- probably the number one and two,
23 and we could argue over that -- chemical
24 companies come and testify before you
25 about supporting this legislation.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 COUNCILMAN KENNEY: Thank you
3 very much for your testimony.

4 Questions?

5 COUNCILWOMAN BROWN: Thank you
6 very much for your testimony.

7 A couple of things. One, I
8 would like to put on the record that the
9 next time you're looking for acquisitions
10 locations, look in Philadelphia too.
11 We're delighted to hear about the benefit
12 that the counties get. But in a friendly
13 way, we would love to have your company
14 seek out land acquisitions that are
15 appropriate for your company as well.

16 What is -- I believe you called
17 this an 0-0 home; is that what you called
18 it? Or was it a zero-zero home?

19 MS. CORUJO: A net-zero home.
20 That means that the home --

21 COUNCILWOMAN BROWN: Net-zero.

22 MS. CORUJO: Net zero so that
23 everything that you consume, using the
24 home, it ends up being zero. You
25 don't -- the electricity you consume you

1 4.8.10 - ENVIRONMENT - BILL 090923

2 get back.

3 So all of the building
4 materials in the home, you end up not
5 spending any money for it.

6 COUNCILWOMAN BROWN: I see.

7 MS. CORUJO: And it was near
8 net zero; it wasn't a hundred percent
9 zero.

10 There is -- actually, in
11 Germany, we have a zero-net home.

12 COUNCILWOMAN BROWN: Where did
13 this --

14 MS. CORUJO: That was in
15 Patterson, New Jersey.

16 COUNCILWOMAN BROWN: Patterson,
17 New Jersey.

18 MS. CORUJO: Mm-hmm.

19 COUNCILWOMAN BROWN: And you
20 say you have 500 customers --

21 (Indiscernible; parties talking
22 over each other.)

23 MS. MILKMAN: We have over 500
24 customers in this area for the white-roof
25 coatings.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 COUNCILWOMAN BROWN: And so
3 that means persons who actually purchase
4 the product -- businesses that actually
5 purchase the products?

6 MS. CORUJO: Right. We don't
7 make the final products; we sell the
8 ingredients to make the products.

9 COUNCILWOMAN BROWN: I see.

10 MS. CORUJO: So those people --
11 like previous people who have testified
12 today make the coatings that would go on
13 and the foam that would go on.

14 COUNCILWOMAN BROWN: Thank you.

15 MS. CORUJO: Mm-hmm.

16 COUNCILWOMAN BROWN: Thank you,
17 Mr. Chairman.

18 COUNCILMAN KENNEY: Councilman
19 Jones.

20 COUNCILMAN JONES: Thank you,
21 Mr. Chairman.

22 Where was the zero -- where was
23 the house you were talking about?

24 MS. CORUJO: It was in
25 Patterson, New Jersey.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 COUNCILMAN JONES: Yes. And,
3 actually, I visited. And they used a
4 combination of technologies for hydrogen,
5 and they were able to sell back to the
6 grid, which I thought was fascinating.

7 I'm glad to meet you and be a
8 part of it, but I had to go with my
9 colleague's point of view. Philadelphia,
10 Pennsylvania is a great place to be
11 energy-efficient as well.

12 MS. CORUJO: We actually have
13 three programs right now in the City of
14 Philadelphia. One is in Parkside.

15 COUNCILWOMAN BROWN: Where?

16 MS. CORUJO: Parkside.

17 COUNCILMAN JONES: In West
18 Philadelphia?

19 MS. CORUJO: Mm-hmm.

20 COUNCILMAN JONES: I've heard
21 of that; it's in my district.

22 MS. MILKMAN: With Jim
23 (indiscernible).

24 Then we also have a program
25 that we did. We did some work with the

1 4.8.10 - ENVIRONMENT - BILL 090923

2 training center of -- the ECA Training
3 Center; we have some products there.

4 And we also are active with the
5 Clinton Climate Initiative.

6 So we have done some things in
7 Philadelphia.

8 COUNCILMAN JONES: Thank you so
9 much.

10 MS. CORUJO: Thank you.

11 COUNCILMAN KENNEY: Thank you.

12 Any other questions?

13 (No further questions.)

14 COUNCILMAN KENNEY: Anyone else
15 to testify on this bill?

16 Please.

17 (Witness comes forward.)

18 COUNCILMAN KENNEY: Please
19 identify yourself for the record.

20 MR. MALFASUTTO: My name is
21 Salvatore Malfasutto (sp?). I'm the
22 roofing and construction supervisor for
23 Philadelphia Housing Development
24 Corporation.

25 Councilman, I agree a hundred

1 4.8.10 - ENVIRONMENT - BILL 090923

2 percent on cool-roof plan. We actually
3 did a pilot program roughly about five
4 years ago with silver coating or white
5 coating with a Karnak application, where
6 we have like a hundred percent success,
7 where we did a water base application and
8 the coating. And we've never had a
9 problem with it.

10 The thing that we did, though,
11 we designed a drop-down ease box, where,
12 with putting the roof on, the ease box,
13 we -- as you know, we had 78 inches of
14 snow this year. We had no callbacks
15 because the snow does not -- actually,
16 the ice doesn't form around the ease box.
17 So with the cool roofing and a
18 combination of the ease box, we had no
19 problem.

20 COUNCILMAN KENNEY: Great.

21 Thank you. Thanks for coming in.

22 MR. MALFASUTTO: One thing in
23 regards to the application to the cool
24 roofs. I know the Councilman was saying
25 about -- the main thing is to have

1 4.8.10 - ENVIRONMENT - BILL 090923

2 approved applicators because if you get
3 anybody that just goes to Home Depot,
4 you're going to have white stuff all over
5 the pavements, because, seriously, if
6 they don't read the label on the can and
7 if rain's eminent like they had years ago
8 over on Bridesburg, it was white in July
9 because they sprayed the roofs, rain
10 came, and everything got washed down.

11 So you got to make sure you
12 have approved applicators when you do any
13 type of roofing system.

14 COUNCILMAN KENNEY: Well, thank
15 you. Thank you for waiting around and
16 giving your testimony. I appreciate it.

17 MR. MALFASUTTO: That's okay.

18 COUNCILMAN KENNEY: Any other
19 witnesses for this bill?

20 (No response.)

21 COUNCILMAN KENNEY: All right.
22 We have a couple of issues that we have
23 to put on the record.

24 First of all, we have letters
25 in support from the Building Industry

1 4.8.10 - ENVIRONMENT - BILL 090923

2 Association and from the General Building
3 Contractors Association.

4 We have a letter of approval
5 from the Pennsylvania Department of Labor
6 and Industry, which is a state
7 requirement. Anytime the building code
8 is changed in any municipality of the
9 state, the state labor and Industry must
10 approve that, and we have received that
11 also.

12 Additionally, there is an
13 amendment, which I'm going to ask
14 Councilwoman Brown to offer in a minute.
15 I'll go quickly through the amendment's
16 purpose.

17 There's a number of technical
18 amendments to the bill. We did take out
19 the words "roof coverings over
20 conditions, spaces on low-slope roofs on
21 newly-constructed buildings and additions
22 to existing buildings shall be white in
23 color or Energy Star-rated as highly
24 reflective." We've taken out the words
25 "white in color" so that other pigments

1 4.8.10 - ENVIRONMENT - BILL 090923

2 and other types of reflective material
3 could be used.

4 Additionally, we have an
5 exemption here for a roof: An area which
6 is less than 3 percent of the gross floor
7 area of the building. And that would
8 describe basically a high-rise office
9 building, which has much more side square
10 footage than it has roof square footage,
11 and the installation of a white roof on
12 that building would be negligible in its
13 benefits because most of the energy
14 escapes from the sides of the building,
15 not from the roof.

16 So if you look at like Society
17 Hill Towers, for example, it has much
18 more energy released to the sides than
19 the roof. And putting a white roof on
20 would not in any substantial --

21 COUNCILMAN DiCICCO: Comcast
22 Tower.

23 COUNCILMAN KENNEY: Yeah,
24 anything large like that.

25 We have also taken out, because

1 4.8.10 - ENVIRONMENT - BILL 090923

2 we have already received a letter of
3 approval from the Department of Labor and
4 Industry of the Commonwealth, that in the
5 end, it's also a technical amendment.
6 We've just taken out the wording that
7 says we have to get approval first before
8 we can do it so that we've gotten
9 approval.

10 And we're adding in that the
11 bill could be effective 35 days after it
12 becomes law and on the date which the
13 City Solicitor certifies to the Chief
14 Clerk of Council the requirements of
15 Section 503, Act 45.

16 So that's it right there.

17 Are there any questions on the
18 amendments?

19 (No questions.)

20 COUNCILMAN KENNEY: And we will
21 then conclude our public hearing and we
22 will start a public meeting.

23 And the Chair recognizes
24 Councilmember Brown for a motion on the
25 amendments.

1 4.8.10 - ENVIRONMENT - BILL 090923

2 COUNCILWOMAN BROWN: Certainly.

3 I make a motion that the
4 amendments to Bill No. 090923 be amended
5 as presented.

6 (Motion duly seconded.)

7 COUNCILMAN KENNEY: It's been
8 moved and seconded.

9 All in favor, aye?

10 There are none opposed.

11 I will now recognize
12 Councilmember Brown on a motion on the
13 amended bill and a suspension.

14 COUNCILWOMAN BROWN:
15 Mr. Chairman, I move that Bill No.
16 090923, as amended, be moved out of
17 committee with a favorable
18 recommendation, and further move that the
19 rules of Council be suspended so as to
20 permit first reading at our next
21 scheduled Council session.

22 (Motion duly seconded.)

23 COUNCILMAN KENNEY: It's been
24 moved and seconded.

25 All in favor, aye?

1 4.8.10 - ENVIRONMENT - BILL 090923

2 There are none opposed.

3 Bill 090923 will be reported
4 out of this committee favorably, as
5 amended, and with a request for a rules
6 suspension to allow for first reading at
7 our next Council session.

8 Thank you for your attendance,
9 and I thank all of the witnesses for
10 coming in.

11 (Proceedings end at 2:15 p.m.)

12 * * *

13

14

15

16

17

18

19

20

21

22

23

24

25

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

C E R T I F I C A T E

I HEREBY CERTIFY that the
proceedings of the City of Philadelphia Council
Committee on the Environment are contained
fully and accurately in the stenographic notes
taken by me on Thursday, April 8, 2010, and
that this is a true and correct statement of
same.

JOSEPHINE CARDILLO
Registered Professional Reporter

(The foregoing certification of
this transcript does not apply to any
reproduction of the same by any means, unless
under the direct control and/or supervision of
the certifying reporter.)

